

# 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 2)

Total Time: 1 Hour : 30 Minute

Total Marks: 100

## Instructions

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

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

## General Intelligence & Reasoning

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

42, 38, 80, 118, 198, 316, ?

- a. 486
- b. 506
- c. 514
- d. 494

- 
2. Eight boys A, B, C, D, E, F, G and H are sitting around a square table, facing towards the centre (but not necessarily in the same order). Two boys are sitting on each side. G and C are sitting on the same side. E is sitting opposite to G and E is to the immediate right of B. F and H are sitting on the adjacent side of G and C. F and H are sitting on the same side. H is fourth to the left of B. D is not the immediate neighbour of G. Which of the following pairs of boys represent the boys sitting on the same side of the square table? (+1, -0.25)

- a. AC
- b. HD
- c. BD
- d. BA

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

TRO : QMN :: BLA : ?

- a. YHZ
- b. XGZ
- c. XHG
- d. YGZ

4. The weight of seven boys B1, B2, B3, B4, B5, B6 and B7 are compared. The weight of no two boys is the same. The weight of B4 is less than only three boys. The weight of B1 is more than B7. The weight of B2 is the most. B5 and B6 both weigh more than B1. The weight of B3 is less than that of B7. (+1, -0.25)

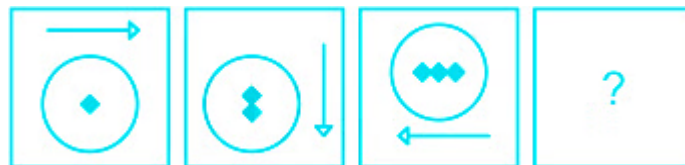
How many boys weigh less than B1?

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

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





a.



b.



c.



d.

6. In a certain code language, 'nu vu du' is written as 'Time and Money', 'hu du ru' is written as 'Manage Money Judiciously', and 'tu vu lu' is written as 'Save More Time'. What is the code for 'Save More Money' in that code language? (+1, -0.25)

- a. du nu lu
- b. nu tu du
- c. tu lu du
- d. tu vu du

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

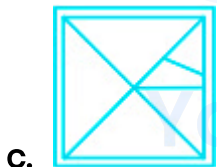
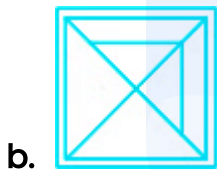
KING : HFKD :: FRKM : ?

- a. CLHJ
- b. CLHK

c. COHK

d. COHJ

8. Select the option in which the given figure is embedded. (Rotation is not allowed) (+1, -0.25)



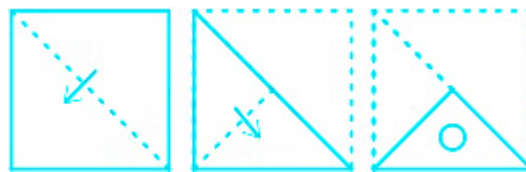
9. In a certain code language, 'TORQ' is coded as '210', and 'HARN' is coded as '123'. (+1, -0.25)

How will 'PADM' be coded in that code language?

a. 94

- b. 112
- c. 102
- d. 86

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



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

11. Read the given statements and conclusions carefully. Assuming that the information given in the statements is true, even if it appears to be at (+1, -0.25)

variance with commonly known facts, decide which of the given conclusions logically follow(s) from the statements.

**Statements:**

- I. No car is a bench.
- II. All tables are cars.

**Conclusions:**

- I. Some cars are tables.
  - II. Some cars are benches.
  - III. No bench is a table.
- a. Only conclusion II follows
  - b. All the conclusions follow
  - c. Only conclusions I and III follow
  - d. Only conclusions I and II follow

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

XJ, AG, DD, GA, ?

- a. KX
- b. JX
- c. KY
- d. JY

13. Select the option in which the numbers are related in the same way as are the numbers in the given set. (+1, -0.25)

(18, 400, 484)

a. (20, 400, 576)

b. (14, 256, 400)

c. (22, 400, 324)

d. (24, 676, 784)

14. Five people, J, N, P, R and S are sitting in a straight row, facing the North, but not necessarily in the same order. Only N sits between J and S. S sits to the immediate left of P. J sits to the immediate right of R. Who sits at the second position from the left end? (+1, -0.25)

a. S

b. J

c. P

d. R

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

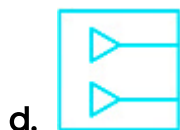
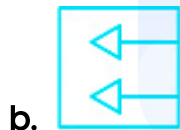
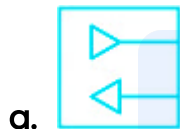
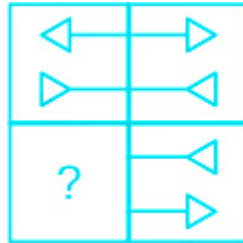
U144 : S121 :: N100 : L81 :: G64 : ?

a. E49

b. G49

- c. F36
- d. D30

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



17. In a certain code language, 'MISTER' is coded as '925301', 'UNCLE' is coded as '84670', and 'SEN' is coded as '504'. How will 'MISTIC' be coded in that language? (+1, -0.25)

- a. 936571
- b. 925326



c. 876523

d. 367829

- 
18. 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. All Crax are Chips.

II. All Drinks are Chips.

**Conclusions:**

I. Some Drinks are not Crax.

II. All Chips are Crax.

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

- 
19. Select the option in which the numbers shares the same relationship as that shared by the numbers in the given set. (+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)

(46, 138, 414)

a. (38, 114, 342)

b. (42, 126, 504)

c. (52, 156, 624)

d. (56, 224, 896)

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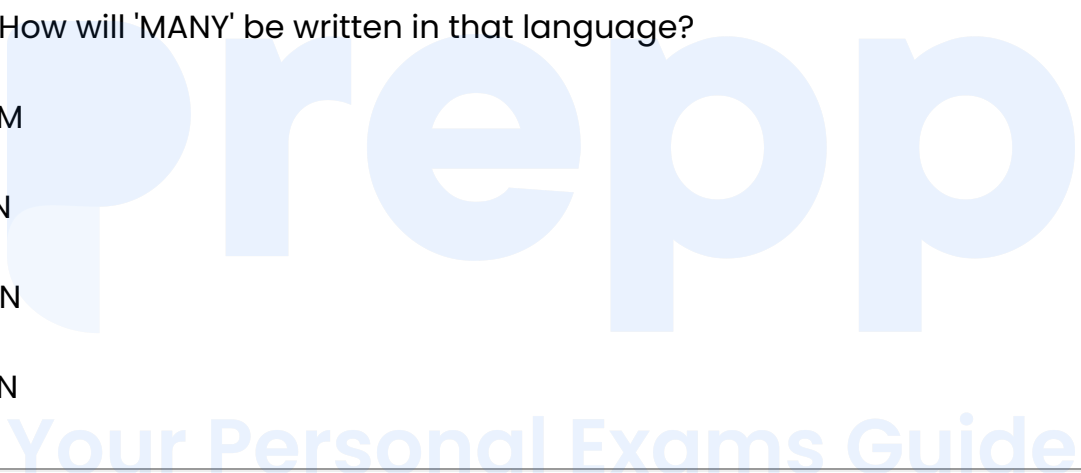
20. In a certain code language, 'HAIR' is written as 'SJB', 'POLE' is written as 'FMPQ'. How will 'MANY' be written in that language? (+1, -0.25)

a. ZOBN

b. ZPBN

c. ZOBN

d. ZOBN



---

21. Which two numbers (not digits) and two signs need to be interchanged to make the given equation correct? (+1, -0.25)

$$28 \times 4 + 15 \div 8 - 34 = 388$$

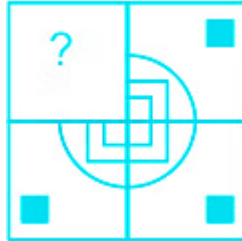
a.  $\times$  and  $\div$ ; 28 and 8

b.  $+$  and  $\div$ ; 4 and 34

c.  $-$  and  $\times$ ; 15 and 28

d.  $+$  and  $\times$ ; 15 and 8

22. Select the figure from the options that can replace the question mark (?) (+1, -0.25) and complete the pattern.



23. After interchanging the given two signs + and - and two numbers 6 and 25, what will be the value of the given expression? (+1, -0.25)

$$4 - 6 \div 5 \times 25 + 14$$

- a. 5  
b. 10  
c. 20

d. 15

24. Select the option that will replace the question mark (?) in the given series. (+1, -0.25)

11, 16, 26, 41, 61, ?

- a. 76
- b. 91
- c. 86
- d. 81

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



- a.
- b.
- c.



d.

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## Numerical Aptitude

26. The length of the common chord of two circles of radii 18 cm and 16 cm is 19.2 cm. What is the distance between the centres of the two circles? (+1, -0.25)  
[Give your answer correct to the nearest integer value.]
- a. 23 cm
  - b. 28 cm
  - c. 20 cm
  - d. 35 cm

- 
27. Study the given table and answer the question that follows. (+1, -0.25)

The table below shows the number of cricket bats made by five workers on six days of a particular week.

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Day → Worker ↓	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	90	70	110	85	75	60
A	40	65	70	82	90	95
B						
C	100	95	74	80	63	60
D						
E	40	40	50	45	60	30
	54	65	32	48	85	96

In how many days is the number of bats made by C more than the average number of bats made by A per day?

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

28. The length and the breadth of a rectangular cardboard are 40 cm and 35 cm, respectively. If the biggest possible square is cut out from this cardboard, what is the area of the remaining part of the cardboard? (+1, -0.25)

- a.  $175 \text{ cm}^2$
- b.  $275 \text{ cm}^2$
- c.  $425 \text{ cm}^2$
- d.  $325 \text{ cm}^2$

---

29. If the HCF of two numbers (each greater than 17) be 17 and the LCM be 561, then find the sum of the numbers. (+1, -0.25)

- a. 387
- b. 238
- c. 268
- d. 340

---

30. Shubham bought a book from Meesho at Rs. 500. Meesho also charged an additional Rs. 25 for packaging and Rs. 50 for delivering the book. For what amount should Shubham sell his book to make a profit of 16%? (+1, -0.25)

- a. Rs. 667
- b. Rs. 612
- c. Rs. 783
- d. Rs. 458

---

31. The average weight of 17 students of a class is 56 kg. 3 new students whose weights are 57, 62 and 68 kg, respectively, join the class. Find the new average weight of the students of the class. (+1, -0.25)

- a. 58.05 kg
- b. 56.45 kg
- c. 57.65 kg
- d. 56.95 kg

---

32. J can complete a work in 21 days, K can complete it in 42 days and L can complete it in 63 days. If J, K and L work together, in how many days can they complete the work? (+1, -0.25)

- a.  $11\frac{6}{11}$
- b.  $11\frac{3}{11}$
- c.  $11\frac{4}{11}$
- d.  $11\frac{5}{11}$

---

33. If  $A = \frac{3 \times 4 + 2}{6 \div 3 + 2}$  and  $B = \frac{12 \div 6 \times 2}{8 \div 4 - 3}$ , then what is the value of  $A^2 + B^2 - 2AB$ ? (+1, -0.25)

- a. 72.25
- b. 52.25
- c. 42.25
- d. 56.25

---

34. If  $m : n = 5 : 4$ , then what is the value of  $(m^2 + n^2) : (m^2 - n^2)$ ? (+1, -0.25)

- a. 16 : 9
- b. 25 : 9

c. 32 : 5

d. 41 : 9

---

35. A sum of money is distributed among A, B and C in the ratio 8 : 4 : 3. If A divides his part between D and E in the ratio 9 : 7, then what is the ratio of the share of C to that of D? (+1, -0.25)

a. 4 : 5

b. 3 : 4

c. 2 : 3

d. 6 : 7

---

36. The average age of 3 girls is 24 years and their ages are in the proportion of 7 : 8 : 9. What is the age of the eldest girl? (+1, -0.25)

a. 24 years

b. 25 years

c. 21 years

d. 27 years

---

37. Find the sum of money which must be invested at simple interest for 8 months at 6% per annum in order to earn Rs. 250 as interest. (+1, -0.25)

a. Rs. 6,550

b. Rs. 6,225

c. Rs. 7,250

d. Rs. 6,250

---

38. The cash difference between the selling prices of an article at a profit of 8% and at a loss of 4% is Rs. 54. Find the cost price of the article. (+1, -0.25)

a. Rs. 720

b. Rs. 450

c. Rs. 540

d. Rs. 480

---

39. A certain number of identical spheres are formed by melting a large sphere of radius 28 cm. What is the number of small spheres formed if the surface area of each small sphere is  $2464 \text{ cm}^2$ ? [Use  $\pi = \frac{22}{7}$ ] (+1, -0.25)

a. 7

b. 8

c. 9

d. 6

---

40. The marked price of a laptop is Rs. 65,000. The laptop is sold at a discount of 20%. If a profit of 30% is made through the sale, then what is the cost price of the laptop? (+1, -0.25)

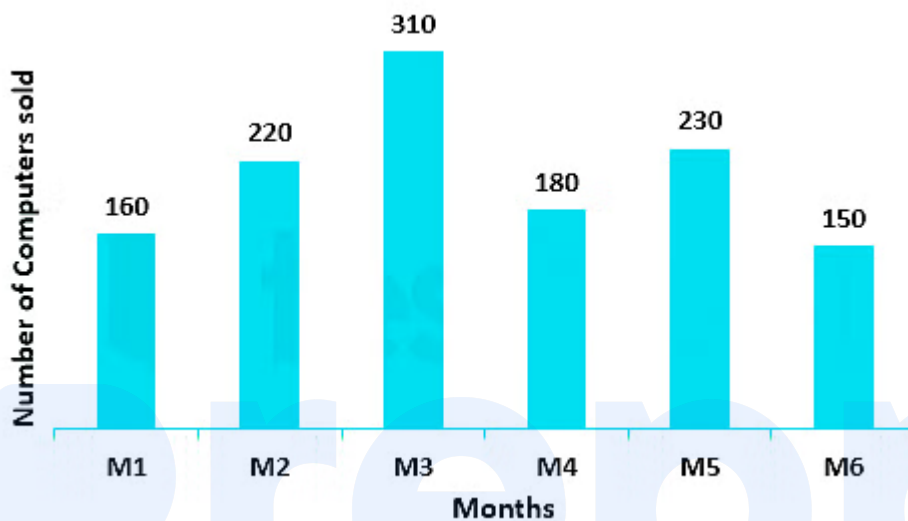
a. Rs. 50,000

b. Rs. 45,000

c. Rs. 48,000

d. Rs. 40,000

41. The following bar chart shows the number of computers sold by a shop in 6 consecutive months. (+1, -0.25)



What is the average number of computers sold per month during this period? [Round off your answer to the nearest integer value.]

- a. 204
  - b. 219
  - c. 212
  - d. 208
42. In a city 60% of the population are males and the rest are females. If the ratio of married males to non-married males is 5 : 7, and the ratio of married females to non-married females is 2 : 3, then what percentage of the total population is married? (+1, -0.25)

a. 41%



- b. 59%
- c. 51%
- d. 49%

---

43. The simple interest on a sum of money invested for a period of 10 years is equal to  $\frac{4}{5}$  th of the sum invested. What is the rate of simple interest per annum that is being given? (+1, -0.25)

- a. 9%
- b. 8.5%
- c. 10%
- d. 8%

---

44. A 1 alone can complete a piece of work in 14 days, A 2 alone can complete the same work in 21 days, while A 3 alone can complete the same work in 28 days. The three worked together, completed the work, and received a total payment of Rs. 1,040 for doing the work. What is A 2 's share in the total payment received? (+1, -0.25)

- a. Rs. 240
- b. Rs. 480
- c. Rs. 320
- d. Rs. 400

---

45. Ravi buys 5 pens at Rs. 150 each, 2 pencils at Rs. 100 each, and 3 notebooks at Rs. 250 each. What is the average expenditure incurred by Ravi per article? (+1, -0.25)

- a. Rs. 170
- b. Rs. 160
- c. Rs. 165
- d. Rs. 180

---

46. Points A and B are 200 km apart. A person starts from A at 10 a.m. at a speed of 10 km/h and goes towards B. Another person starts from B at 11 a.m. at a speed of 20 km/h and goes towards A. At what time will they meet? (+1, -0.25)

- a. 5:10 p.m.
- b. 4:40 p.m.
- c. 5:40 p.m.
- d. 5:20 p.m.

---

47. A boat can travel in still water at 7 km/h and the speed of the stream is 3 km/h. Find the total time (in hours) taken by the boat to travel 60 km upstream and return to the starting point. (+1, -0.25)

- a. 20
- b. 15
- c. 21
- d. 16

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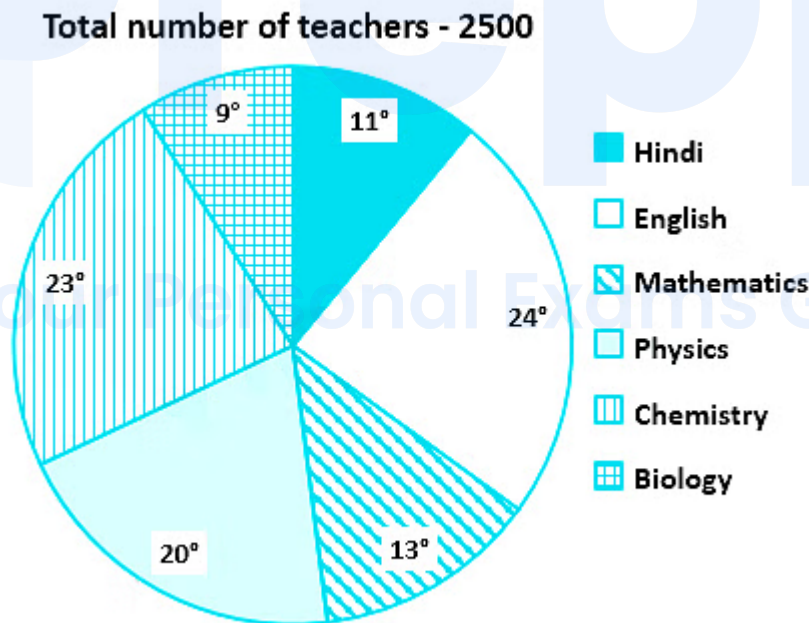
48. The length of a rectangle is increased by  $16\frac{2}{3}\%$ . By what approximate percentage should its breadth be decreased so that the area of the (+1, -0.25)

rectangle remains unchanged?

- a. 17.5%
- b. 14.29%
- c. 10%
- d. 12.5%

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

The pie-chart shows the percentage-wise distribution of teachers in a district who teach six different subjects as percentages of the total number of teachers of all the subjects taken together.



What is the ratio of the number of teachers who teach English to the number of teachers who teach Chemistry?

- a. 3 : 2

- b. 23 : 18
  - c. 24 : 23
  - d. 13 : 20
- 

50. Select the number that will come in place of the question mark (?) in the mathematical statement. (+1, -0.25)

$$(0.064)^{123} \div 0.16^{47} \times 0.4^{34} \times 0.4^{29} = (0.4)^?$$

- a. 350
- b. 320
- c. 338
- d. 341



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## General English

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

The Mid-Day Meal Programme has been running \_\_\_\_\_ 21 years.

- a. for
- b. off
- c. since
- d. of

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

Not fit to eat

- a. Sullen
- b. Potable
- c. Inedible
- d. Fragile

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

A large group of people, especially the nomadic

- a. Cavalry
- b. Urban

- c. Horde
  - d. Hamlet
- 

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

- a. Innoculete
  - b. Inoculate
  - c. Inocculate
  - d. Innoculate
- 

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

Water under the bridge

- a. Something which happens all the time
  - b. Something that does not affect the past
  - c. Anything from the past that is not significant or important anymore
  - d. A problem which has been existing and will continue to exist in the future
- 

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

Rivers / has being of primary/importance throughout / human history.

- a. Rivers



- b. human history
  - c. has being of primary
  - d. importance throughout
- 

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

Ron added a feather in his cap by winning that international tournament.

- a. To feel well and healthy
  - b. An achievement to be proud of
  - c. To take advantage of one's position
  - d. An expression of extreme annoyance
- 

58. 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)

In spite of hardly work / she was not able / to pass the exam.

- a. In spite of hardly work
  - b. No error
  - c. to pass the exam
  - d. she was not able
- 

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

He came back from the game, took a \_\_\_\_\_ shower and was ready for the evening.

- a. fast
  - b. clean
  - c. heavy
  - d. quick
- 

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

An action of making amends for a wrong or injury

- a. Atonement
  - b. Redemption
  - c. Rite
  - d. Perjury
- 

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

Intervene

- a. Embody
  - b. Combine
  - c. Coalesce
  - d. Arbitrate
-

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

Sinister

- a. Pertinent
- b. Saintly
- c. Pleasant
- d. Evil

---

63. Select the option that rectifies the incorrectly spelt words in the given sentence. (+1, -0.25)

They have legitimete grounds to engage users.

- a. They have legetimate grounds to engag users.
- b. They have legitimete grounds to engagee users.
- c. They have legitimate grounds to engage users.
- d. They have legitamate grounds to engage users.

---

64. 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)

Despite not getting approval from the leader, we decided to carry out the plan.

- a. carry over
- b. carry away

- c. carry off
  - d. No improvement required
- 

65. 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)

In my experience, the press gallery are more concern to public affairs than private ones.

- a. is more concerned with
  - b. No improvement required
  - c. is much more concerned of
  - d. are much concern for
- 

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

Abate

- a. Moderate
  - b. Observe
  - c. Aggravate
  - d. Decrease
- 

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

Obvious

- a. Hidden
  - b. Plain
  - c. Vapid
  - d. Active
- 

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

Animals that live in water

- a. Nocturnal
  - b. Aerial
  - c. Terrestrial
  - d. Aquatic
- 

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

Many died in captivity and many suffered appalling brutality.

- a. ferocity
  - b. cruelty
  - c. sensuality
  - d. gentleness
-

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

The use of calculators is prohibited in the examination.

- a. is prohibited in
- b. No error
- c. The use of calculators
- d. the examination

- 
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)

Endurance was the three-masted ship in (1) \_\_\_\_\_ Sir Ernest Shackleton and a (2) \_\_\_\_\_ of 27 men sailed for the Antarctic on the 1914–1917 Imperial Trans-Antarctic Expedition. The ship, originally named Polaris, was built at Framnæs shipyard and (3) \_\_\_\_\_ in 1912 from Sandefjord in Norway. After her commissioners could no longer pay the shipyard, the ship (4) \_\_\_\_\_ bought by Shackleton in January 1914 for the expedition, which would be her first (5) \_\_\_\_\_.

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

- a. which
- b. who
- c. that
- d. where

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)

Endurance was the three-masted ship in (1) \_\_\_\_\_ Sir Ernest Shackleton and a (2) \_\_\_\_\_ of 27 men sailed for the Antarctic on the 1914–1917 Imperial Trans–Antarctic Expedition. The ship, originally named Polaris, was built at Framnæs shipyard and (3) \_\_\_\_\_ in 1912 from Sandefjord in Norway. After her commissioners could no longer pay the shipyard, the ship (4) \_\_\_\_\_ bought by Shackleton in January 1914 for the expedition, which would be her first (5) \_\_\_\_\_.

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

- a. watch
- b. team
- c. crew
- d. group

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)

Endurance was the three-masted ship in (1) \_\_\_\_\_ Sir Ernest Shackleton and a (2) \_\_\_\_\_ of 27 men sailed for the Antarctic on the 1914–1917 Imperial Trans–Antarctic Expedition. The ship, originally named Polaris, was built at Framnæs shipyard and (3) \_\_\_\_\_ in 1912 from Sandefjord in Norway. After her commissioners could no longer pay the shipyard, the ship (4) \_\_\_\_\_ bought by Shackleton in January 1914 for the expedition, which would be her first (5) \_\_\_\_\_.

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

- a. released
- b. launched
- c. started
- d. recovered

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)

Endurance was the three-masted ship in (1) \_\_\_\_\_ Sir Ernest Shackleton and a (2) \_\_\_\_\_ of 27 men sailed for the Antarctic on the 1914–1917 Imperial Trans–Antarctic Expedition. The ship, originally named Polaris, was built at Framnæs shipyard and (3) \_\_\_\_\_ in 1912 from Sandefjord in Norway. After her commissioners could no longer pay the shipyard, the ship (4) \_\_\_\_\_ bought by Shackleton in January 1914 for the expedition, which would be her first (5) \_\_\_\_\_.

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

- a. were
- b. was
- c. is
- d. are

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)

Endurance was the three-masted ship in (1) \_\_\_\_\_ Sir Ernest Shackleton and a (2) \_\_\_\_\_ of 27 men sailed for the Antarctic on the



1914–1917 Imperial Trans–Antarctic Expedition. The ship, originally named *Polaris*, was built at Framnæs shipyard and (3) \_\_\_\_\_ in 1912 from Sandefjord in Norway. After her commissioners could no longer pay the shipyard, the ship (4) \_\_\_\_\_ bought by Shackleton in January 1914 for the expedition, which would be her first (5) \_\_\_\_\_.

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

- a. voyage
- b. route
- c. drive
- d. hike

Prepp

Your Personal Exams Guide

## General Awareness

76. Which schedule of the Indian Constitution has provisions related to the Union list? (+1, -0.25)
- a. Fourth schedule
  - b. Ninth schedule
  - c. Seventh schedule
  - d. Tenth schedule
- 
77. Sarai Nurmahal is a centrally protected monument of India. It is situated in which state of India? (+1, -0.25)
- a. Uttar Pradesh
  - b. West Bengal
  - c. Punjab
  - d. Himachal Pradesh
- 
78. Open Market Operations conducted by the Reserve Bank of India (RBI) are of \_\_\_\_\_ types. (+1, -0.25)
- a. two
  - b. three
  - c. five
  - d. four
-

79. Which of the following diseases is caused by the prolonged deficiency of vitamin D? (+1, -0.25)

- a. Rickets
- b. Chickenpox
- c. Scurvy
- d. Marasmus

80. The Deccan plateau lies to the south of which of the following rivers? (+1, -0.25)

- a. Narmada
- b. Krishna
- c. Kaveri
- d. Penna

81. Ravikirti was a court poet of which Chalukya ruler? (+1, -0.25)

- a. Bhima II
- b. Pulakeshin II
- c. Vikramaditya II
- d. Kirtivarman II

82. Which article of the Indian Constitution states that 'No person shall be prosecuted and punished for the same offence more than once'? (+1, -0.25)

- a. Article 28
  - b. Article 18
  - c. Article 20
  - d. Article 21A
- 

83. Which of the following events occurred as an after-effect of the Jallianwala Bagh Massacre (13th April 1919)? (+1, -0.25)

- a. Popularisation of Charkha and Khadi and Jail Bharo by Congress volunteers
  - b. Individual princes could sign a separate agreement with the British
  - c. Hunger strike to settle disputes between the mill owners and the workers
  - d. Hunter Commission was appointed by the British Government
- 

84. Pandit Kishan Maharaj was associated with which instrument? (+1, -0.25)

- a. Santoor
  - b. Dholak
  - c. Tabla
  - d. Sitar
- 

85. What is the approximate atomic mass (u) of hydrogen? (+1, -0.25)

- a. 12

- b. 4
  - c. 1
  - d. 14
- 

86. What is the atomic number of chromium? (+1, -0.25)

- a. 24
  - b. 18
  - c. 21
  - d. 19
- 

87. In which city, Prime Minister Narendra Modi launched the Ayushman Bharat Health Infrastructure Mission? (+1, -0.25)

- a. Kanpur
  - b. Lucknow
  - c. Noida
  - d. Varanasi
- 

88. In which year did the Mughal emperor Aurangzeb die? (+1, -0.25)

- a. 1707
- b. 1701
- c. 1705

d. 1703

---

89. \_\_\_\_\_ is the deepest landlocked and well-protected port in India. (+1, -0.25)

- a. Kandla port
- b. Vishakhapatnam port
- c. Tuticorin port
- d. Mumbai port

---

90. Radha Sridhar received the Sangeet Natak Akademi Award for the year 2018 for her contribution to which classical dance of India? (+1, -0.25)

- a. Kathak dance
- b. Kuchipudi
- c. Sattriya
- d. Bharatanatyam

Your Personal Exams Guide

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91. Who was appointed as the Chief Economic Advisor to the Government of India in January 2022? (+1, -0.25)

- a. S Ramakrishnan
  - b. Krishnamurthy Subramanian
  - c. Raghuram Rajan
  - d. V Anantha Nageswaran
-

92. Which of the following statements is correct?

(+1, -0.25)

- I. Most of Ashoka's inscriptions were written in Brahmi script.
  - II. Many of Chanakya's ideas were written down in a book called the Arthashastra.
- a. Only II
  - b. Only I
  - c. Neither I nor II
  - d. Both I and II

93. Which of the following states does the dance form 'Kalbelia' belong to?

(+1, -0.25)

- a. Uttarakhand
- b. Punjab
- c. Rajasthan
- d. Odisha

94. In which state of India is the Yaoshang festival celebrated?

(+1, -0.25)

- a. Uttar Pradesh
- b. Manipur
- c. Rajasthan
- d. Tamil Nadu

95. As per census 2011, which of the following is the most spoken language of India? (+1, -0.25)
- a. Hindi
  - b. Marathi
  - c. English
  - d. Telugu
- 

96. How many players are a part of the team on the field in a game of Hockey? (+1, -0.25)
- a. 12
  - b. 11
  - c. 10
  - d. 16
- 

97. Which of the following bases is found in window cleaner? (+1, -0.25)
- a. Magnesium hydroxide
  - b. Ammonium hydroxide
  - c. Sodium hydroxide
  - d. Calcium hydroxide
- 

98. David Warner played for which team in IPL 2022? (+1, -0.25)
-



- a. Sunrisers Hyderabad
- b. Royal Challengers Bangalore
- c. Delhi Capitals
- d. Punjab Kings

---

99. According to the 2011 Census, which of the following has the second highest sex ratio in India? (+1, -0.25)

- a. Tamil Nadu
- b. Maharashtra
- c. Kerala
- d. Puducherry

---

100. Who is the author of the book 'Roads to Mussoorie'? (+1, -0.25)

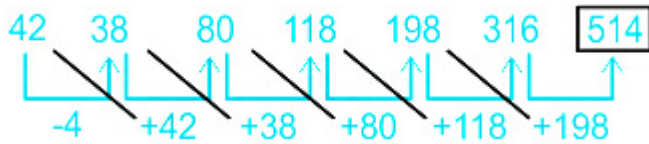
- a. Kiran Desai
- b. Ashwin Sanghi
- c. Amish Tripathi
- d. Ruskin Bond

## Answers

1. Answer: c

Explanation:

The logic followed here is:



So, 514 will complete the series.

Hence, the correct answer is "514".

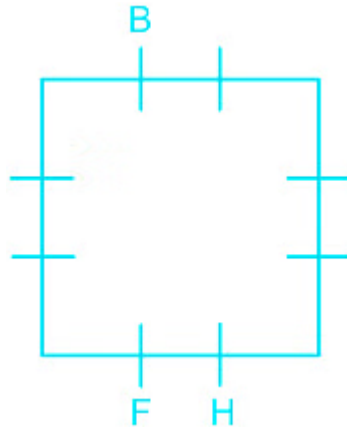
2. Answer: d

Explanation:

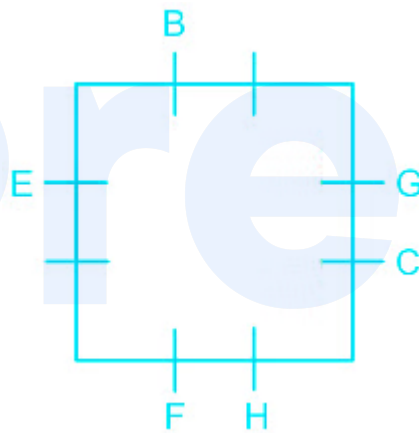
Given: Eight boys A, B, C, D, E, F, G and H.

All are sitting around a square table, facing towards the centre.

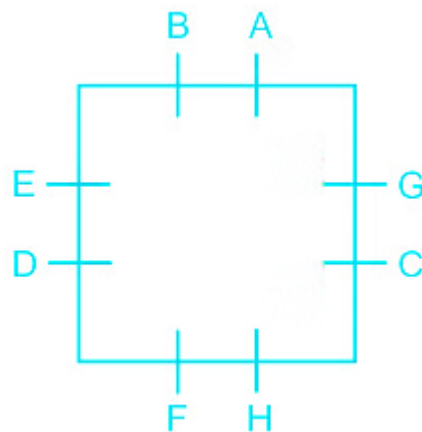
- 1) Two boys are sitting on each side.
- 2) H is fourth to the left of B.
- 3) F and H are sitting on the same side.



- 4) E is sitting opposite to G and E is to the immediate right of B.
- 5) G and C are sitting on the same side.



- 6) D is not the immediate neighbor of G.
- 7) A will sit on the remaining place.



Here, B and A are sitting on the same side of the square table.

Hence, the correct answer is "BA".

3. Answer: d

Explanation:

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

The logic followed here is: Letters + 2

For, TRO : QMN



Similarly, for BLA :



So, 'BLA' will be coded as 'YGZ'.

Hence, the correct answer is "Option 4".

4. Answer: c

**Explanation:**

Given: 8 even boys B1, B2, B3, B4, B5, B6 and B7.

- 1) The weight of B2 is the most.
- 2) The weight of B4 is less than only three boys.

$$B2 > \_ > \_ > B4 > \_ > \_ > \_$$

- 3) The weight of B1 is more than B7.
- 4) The weight of B3 is less than that of B7.

$$B2 > \_ > \_ > B4 > B1 > B7 > B3$$

B5 and B6 both weight more than B1.

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

So, there are 2 Boys (B7 & B3) whose weight is less then B1.

Hence, the correct answer is "2".

**5. Answer: a**

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**Explanation:**

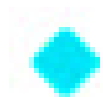
The logic followed here is:

Step I:

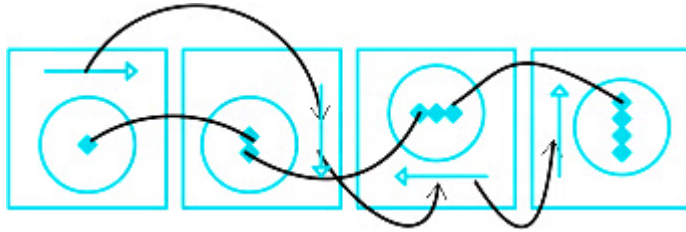


moves 90 degree in clockwise direction in next image.

Step II:



increasing by 1 more square in next images.



So, Option 1 will complete the series.

Hence, the correct answer is "Option 1".

6. Answer: c

Explanation:

The logic followed here is:

'nu vu du' is written as 'Time and Money',

'hu du ru' is written as 'Manage Money Judiciously',

'tu vu lu' is written as 'Save More Time'.



Here,

'Save' and 'More' will be coded as either 'tu' or 'lu'.

'Money' will be coded as 'du'.

So, 'Save More Money' will be coded as 'tu lu du'.

Hence, the correct answer is "Option 3".

7. 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: **Letter - 3**

For, KING : HFKD



Similarly, for FRKM :





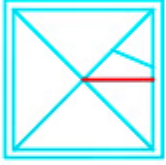





So, 'FRKM' will be coded as 'COHJ'.

Hence, the correct answer is "Option 4".

8. Answer: a

Explanation:

The image embedded in given figure is as shown below:

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

Hence, "Option 4" is the correct answer.

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9. Answer: c

Explanation:

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

The logic followed here is: **Sum of the positional value × 3**

'TORQ' is coded as '210',



$$T(20) + O(15) + R(18) + Q(17)$$

$$\Rightarrow 20 + 15 + 18 + 17 = 70, 70 \times 3 = 210.$$

for, 'HARN' is coded as '123'.

$$H(8) + A(1) + R(18) + N(14)$$

$$\Rightarrow 8 + 1 + 18 + 14 = 41, 41 \times 3 = 123.$$

Similarly, for PADM:

$$P(16) + A(1) + D(4) + M(13)$$

$$\Rightarrow 16 + 1 + 4 + 13 = 34, 34 \times 3 = 102.$$

So, 'PADM' will be coded as '102'.

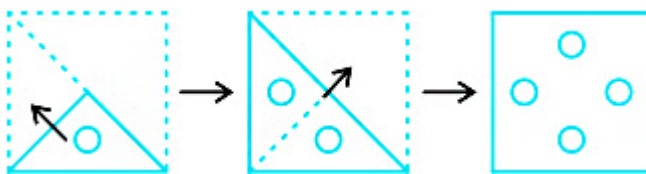
Hence, the correct answer is "102".

---

10. Answer: d

**Explanation:**

The paper when unfolded will appear as shown below:



Hence, ' option 4 ' is the correct answer.

---

11. Answer: c

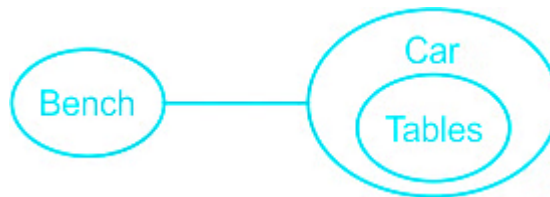
**Explanation:**

Statements:

I. No car is a bench.

II. All tables are cars.

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



Conclusions:

(i) Some cars are tables - True (Because All tables are cars ).

(ii) Some cars are benches - False (Because No car is a bench ).

(iii) No bench is a table - **True** (Because All tables are Car and No car is a bench, so no bench is table).

Here, Only conclusion I and III follows.

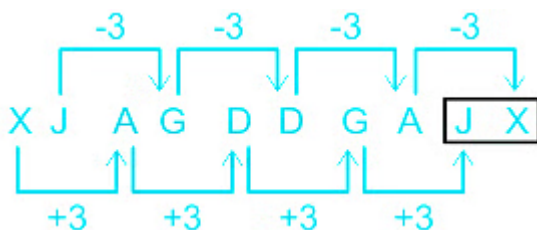
Hence, the correct answer is "Option 3".

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12. Answer: b

Explanation:

The logic followed here is:



So, 'JX' will complete the series.

Hence, the correct answer is "JX".

---

**13. Answer: d**

**Explanation:**

The logic followed here is:

1st number;

$$(1st\ number + 2)^2 = 2nd\ number;$$

$$(1st\ number + 4)^2 = 3rd\ number;$$

Now,

$$(18, 400, 484)$$

$$18, (18 + 2)^2, (18 + 4)^2$$

$$= 18, (20)^2, (22)^2 \rightarrow (18, 400, 484);$$

Similarly, for (24, 676, 784)

$$24, (24 + 2)^2, (24 + 4)^2$$

$$= 24, (26)^2, (28)^2 \rightarrow (24, 676, 784).$$

So, (24, 676, 784) is related in the same way as are the numbers in the given set.

Hence, the correct answer is "Option 4".

---

**14. Answer: b**

**Explanation:**

Given: Five people, J, N, P, R and S.

- 1) J sits to the immediate right of R.
- 2) Only N sits between J and S.
- 3) S sits to the immediate left of P.



So, 'J' sits at the second position from the left end.

Hence, the correct answer is "J".

15. 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

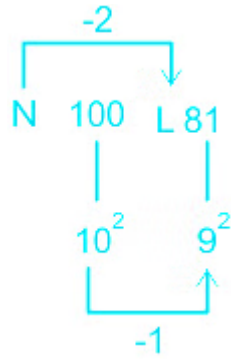
The logic followed here is:

Here,

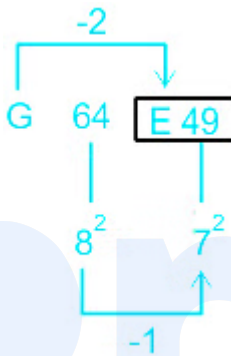
U144 : S121



For, N100 : L81



Similarly, for G64



So, G64 : E49 is similar from the others.

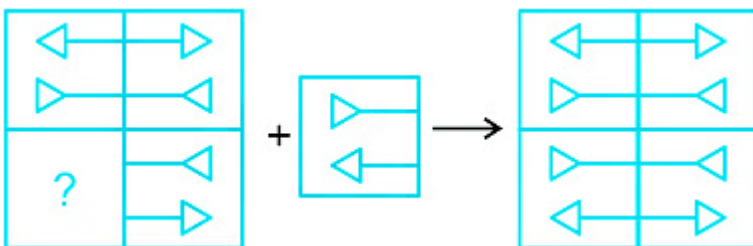
Hence, the correct answer is "Option 1".

16. Answer: a

## Your Personal Exams Guide

### Explanation:

The image that completes the pattern is:



Hence, the correct answer is "Option 1".

17. Answer: b

**Explanation:**

The logic followed here is:

'MISTER' is coded as '925301'

M	I	S	T	E	R
9	2	5	3	0	1

'UNCLE' is coded as '84670',

U	N	C	L	E
8	4	6	7	0

'SEN' is coded as '504',

S	E	N
5	0	4

Similarly, for 'MISTIC'

M	I	S	T	I	C
9	2	5	3	2	6

So, 'MISTIC' will be coded as '925326'

Hence, the correct answer is "Option 2".

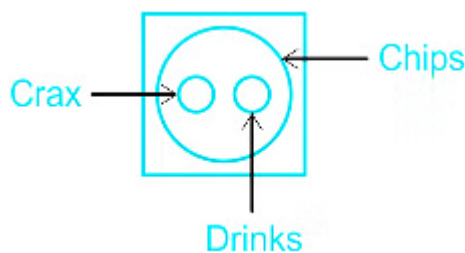
18. Answer: b

**Explanation:**

Statement:

- I. All Crax are Chips.
- II. All Drinks are Chips.

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



Conclusions:

- (i) Some Drinks are not Crax - False (Because No direct relation given between them, so it can be possible not definite).
- (ii) All Chips are Crax - False (It can be possible not definite).

Here, Neither conclusion I nor II follows .

Hence, the correct answer is "Option 2".

**19. Answer: a**

**Explanation:**

The logic followed here is:

1st number  $\times 3 =$  2nd number;

2nd number  $\times 3 =$  3rd number.

Here, (46, 138, 414)

$46 \times 3 = 138;$

$138 \times 3 = 414,$

Similarly,

$(38, 114, 342)$

$38 \times 3 = 114'$

$114 \times 3 = 342.$

So, Option 1 shares the same relationship as that shared by the numbers in the given set.

Hence, the correct answer is "Option 1".

20. 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

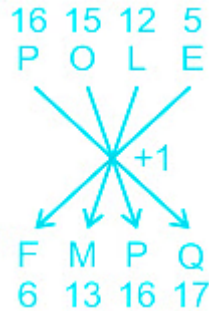
The logic followed here is:

'HAIR' is written as 'SJB I'



'POLE' is written as 'FMPQ'





Similarly, for MANY



So, 'MANY' will be written as 'ZOB N'.

Hence, the correct answer is "ZOB N".

21. Answer: a

Explanation:

Given equation:  $28 \times 4 + 15 \div 8 - 34 = 388$ .

BODMAS Table:

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

Let's check each option one by one.

Option 1)  $\times$  and  $\div$ ; 28 and 8

$$\text{Given: } 28 \times 4 + 15 \div 8 - 34 = 388$$

After interchanging the Symbols & Numbers we get;

$$\Rightarrow \mathbf{8 \div 4} + 15 \times 28 - 34 = 388$$

$$\Rightarrow 2 + \mathbf{15 \times 28} - 34 = 388$$

$$\Rightarrow \mathbf{2 + 320} - 34 = 388$$

$$\Rightarrow \mathbf{322 - 34} = 388$$

$$\Rightarrow \mathbf{388 = 388}$$

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

Option 2)  $+$  and  $\div$ ; 4 and 34

$$\text{Given: } 28 \times 4 + 15 \div 8 - 34 = 388$$

After interchanging the Symbols & Numbers we get ;

$$\Rightarrow 28 \times \mathbf{34 \div 15} + 8 - 4 = 388$$

$$\Rightarrow \mathbf{28 \times 2.26} + 8 - 4 = 388$$

$$\Rightarrow \mathbf{63.28 + 8} - 4 = 388$$

$$\Rightarrow \mathbf{71.28 - 4} = 388$$

$$\Rightarrow 67.28 \neq 388$$

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

Option 3)  $-$  and  $\times$ ; 15 and 28

$$\text{Given: } 28 \times 4 + 15 \div 8 - 34 = 388$$

After interchanging the Symbols & Numbers we get ;

$$\Rightarrow 15 - 4 + \underline{28 \div 8} \times 34 = 388$$

$$\Rightarrow 15 - 4 + \underline{4.5 \times 34} = 388$$

$$\Rightarrow \underline{15} - 4 + \underline{153} = 388$$

$$\Rightarrow \underline{168 - 4} = 388$$

$$\Rightarrow 164 \neq 388$$

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

Option 4) + and  $\times$ ; 15 and 8

$$\text{Given: } 28 \times 4 + 15 \div 8 - 34 = 388$$

After interchanging the Symbols & Numbers we get ;

$$\Rightarrow 28 + 4 \times \underline{8 \div 15} - 34 = 388$$

$$\Rightarrow 28 + \underline{4 \times 0.53} - 34 = 388$$

$$\Rightarrow 28 + 2.12 - 34 = 388$$

$$\Rightarrow 30.12 - 34 = 388$$

$$\Rightarrow -3.88 \neq 388$$

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

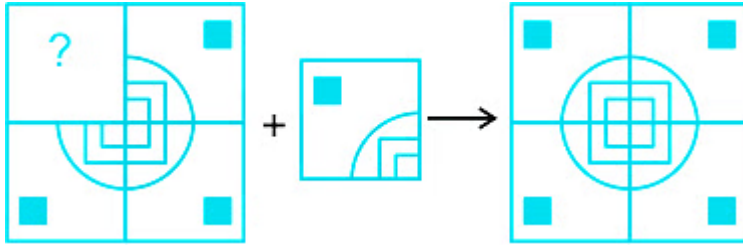
Hence, the correct answer is "Option 1".

---

## 22. Answer: d

### Explanation:

The image that completes the pattern is:



Hence, the correct answer is "Option 4".

23. Answer: c

Explanation:

BODMAS Table:

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

Given equation:  $4 - 6 \div 5 \times 25 + 14$

Now, if '+' and '-' and '6 and 25' are interchanged, then:

$$\Rightarrow 4 + \underline{25 \div 5} \times 6 - 14$$

$$\Rightarrow 4 + \underline{5 \times 6} - 14$$

$$\Rightarrow 4 + 30 - 14$$

$$\Rightarrow 34 - 14 = 20.$$

Hence, the correct answer is "Option 3".

**24. Answer: c**

**Explanation:**

The logic followed here is:

Given Series: 11, 16, 26, 41, 61, ?

Here,

$$11 + 5 = 16;$$

$$16 + 10 = 26;$$

$$26 + 15 = 41;$$

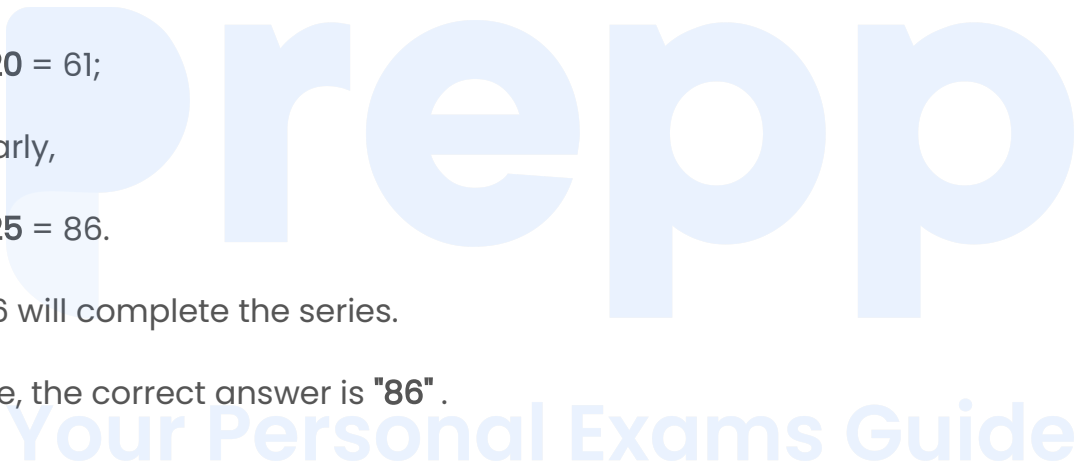
$$41 + 20 = 61;$$

Similarly,

$$61 + 25 = 86.$$

So, 86 will complete the series.

Hence, the correct answer is "86".



**25. Answer: d**

**Explanation:**

The logic followed here is:

Step I:-

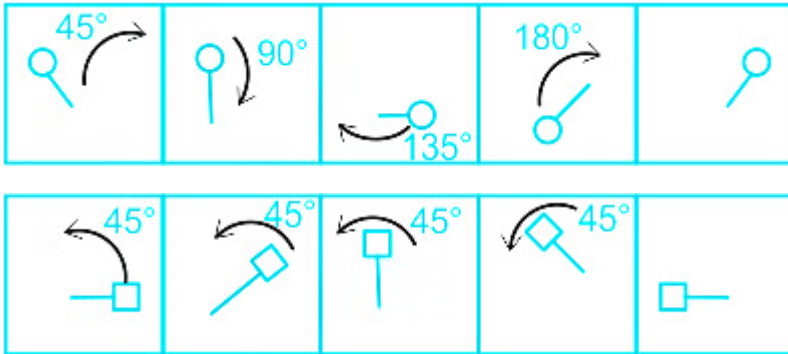


- Rotated  $45^\circ, 90^\circ, 135^\circ, 180^\circ$  clockwise direction in next images.

Step II:-



- It Rotated  $45^\circ$  in anticlockwise direction.



So, the series will be:



Hence, the correct answer is "Option 4" .

26. Answer: b

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### Explanation:

Given:

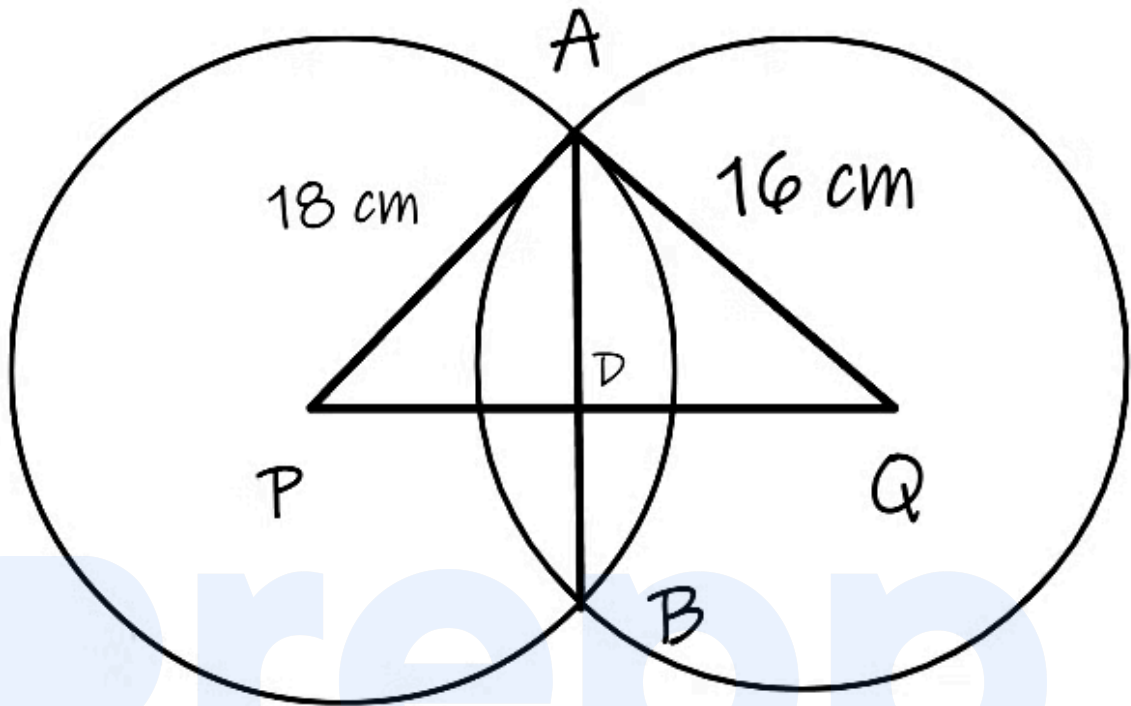
The length of the common chord of two circles of radii 18 cm and 16 cm is 19.2 cm.

Concept used:

1. The line of centres of two intersecting circles perpendicularly bisects their common chord.

2. In a right-angled triangle,  $\text{Height}^2 + \text{Base}^2 = \text{Hypotenuse}^2$

Calculation:



Let, P and Q be the centres of the larger and smaller circles respectively.

So,  $PA = 18$  cm,  $QA = 16$  cm.

AB is the common chord. So,  $AB = 19.2$  cm

According to the concept,

PQ perpendicularly bisects AB at D. So,  $AD = DB = 19.2/2 = 9.6$  cm

Considering  $\triangle ADQ$ ,

$$AD^2 + DQ^2 = QA^2$$

$$\Rightarrow DQ^2 = 16^2 - 9.6^2$$

$$\Rightarrow DQ^2 = 163.84$$

$$\Rightarrow DQ = 12.8$$

Considering  $\triangle ADP$ ,

$$AD^2 + DP^2 = PA^2$$

$$\Rightarrow DP^2 = 18^2 - 9.6^2$$

$$\Rightarrow DP^2 = 231.84$$

$$\Rightarrow DP \approx 15.2$$

Hence,  $PQ = DQ + DP = 12.8 + 15.2 = 28$

$\therefore$  The distance between the centres of the two circles is 28 cm.

---

**27. Answer: c**

**Explanation:**

**Calculation:**

The average number of bats made by A per day =  $(90 + 70 + 110 + 85 + 75 + 60)/6 \approx 81.67$

Only on Monday and Tuesday, the number of bats made by C is more than the average number of bats made by A per day.

$\therefore$  The number of bats made by C is more than the average number of bats made by A per day on 2 days.

---

**28. Answer: a**

**Explanation:**

Given:



The length and the breadth of a rectangular cardboard are 40 cm and 35 cm, respectively.

Concept used:

1. Area of a square = (Side)<sup>2</sup> square unit
2. Area of a rectangle = Length × Breadth

Calculation:

$$\text{Area of the cardboard} = 40 \times 35 = 1400 \text{ cm}^2$$

Since the breadth is 35 cm, the maximum measure of each side of the square = 35 cm

$$\text{So, the area of the square} = 35^2 = 1225 \text{ cm}^2$$

$$\text{Now, the area of the remaining part of the cardboard} = 1400 - 1225 = 175 \text{ cm}^2$$

∴ The biggest possible square is cut out from this cardboard, the area of the remaining part of the cardboard is 175 cm<sup>2</sup>.

---

## 29. Answer: b

### Explanation:

Given:

HCF of two numbers (each greater than 17) be 17 and the LCM be 561.

Concept used:

1. Co-prime numbers are a set of numbers or integers which have only 1 as their common factor i.e. their highest common factor (HCF) will be 1.
2. LCM is the smallest common multiple of two or more numbers.
3. HCF of two or more numbers is the greatest factor that divides the numbers.

Calculation:

Let the number be  $17a$  and  $17b$  respectively. (where  $a$  and  $b$  are co-prime)

According to the concept,

$$\text{LCM}(17a, 17b) = 561$$

$$\Rightarrow 17 \times a \times b = 561$$

$$\Rightarrow ab = 33 \quad \dots(1)$$

The only possible pair that suffice the condition in (1) and both are co-prime,  $a = 11$  and  $b = 3$

Hence, the sum of the numbers

$$\Rightarrow 17a + 17b$$

$$\Rightarrow 17(a + b)$$

$$\Rightarrow 17 \times (11 + 3)$$

$$\Rightarrow 238$$

$\therefore$  The sum of the numbers is 238.

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### 30. Answer: a

#### Explanation:

Given:

Shubham bought a book from Meesho at Rs. 500. Meesho also charged an additional Rs. 25 for packaging and Rs. 50 for delivering the book.

Profit% = 16%

Concept used:

$$\text{Selling Price} = \text{Cost Price} \times (1 + \text{Gain}\%)$$

Calculation:

$$\text{Total cost price occurred to Shubham} = 500 + 25 + 50 = \text{Rs. } 575$$

$$\text{Now, the selling price} = 575(1 + 16\%) = \text{Rs. } 667$$

$\therefore$  Shubham should sell his book for Rs. 667 to make a profit of 16%.

---

**31. Answer: d**

**Explanation:**

Given:

The average weight of 17 students in a class is 56 kg.

3 new students whose weights are 57, 62, and 68 kg, respectively, join the class.

Concept used:

$$\text{Total} = \text{Average} \times \text{Number of entities}$$

Calculation:

$$\text{Initially the total weight of all 17 students} = (17 \times 56) \text{ kg}$$

Now, the average weight of (17 + 3) i.e. 20 students

$$\Rightarrow (17 \times 56 + 57 + 62 + 68) / 20$$

$$\Rightarrow 56.95 \text{ kg}$$

$\therefore$  The new average weight of the students in the class is 56.95 kg.

---

**32. Answer: d**

**Explanation:**

Given:

J can complete a work in 21 days, K can complete it in 42 days and L can complete it in 63 days.

Concept used:

If A, B, and C alone can complete a task in X, Y, and Z days respectively, then they together will take =  $\frac{XYZ}{(XY + YZ + XZ)}$  days to complete the work.

Calculation:

Now working together, they can complete the work in

$$\Rightarrow \frac{(21 \times 42 \times 63)}{(21 \times 42 + 42 \times 63 + 21 \times 63)}$$

$$\Rightarrow \frac{55566}{4851}$$

$$\Rightarrow \frac{126}{11}$$

$$\Rightarrow 11\frac{5}{11} \text{ days}$$

$\therefore$  They can complete the work in  $11\frac{5}{11}$  days.

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**33. Answer: d**

**Explanation:**

Given:

$$A = \frac{3 \times 4 + 2}{6 \div 3 + 2} \text{ and } B = \frac{12 \div 6 \times 2}{8 \div 4 - 3}$$

Concept used:

$$A^2 + B^2 - 2AB = (A - B)^2$$

Calculation:

$$A = \frac{3 \times 4 + 2}{6 \div 3 + 2}$$

$$\Rightarrow A = \frac{3 \times 4 + 2}{2 + 2}$$

$$\Rightarrow A = \frac{12 + 2}{2 + 2}$$

$$\Rightarrow A = 3.5 \quad \dots(1)$$

$$B = \frac{12 \div 6 \times 2}{8 \div 4 - 3}$$

$$\Rightarrow B = \frac{2 \times 2}{2 - 3}$$

$$\Rightarrow B = -4 \quad \dots(2)$$

Now,  $A^2 + B^2 - 2AB$

$$\Rightarrow (A - B)^2$$

$$\Rightarrow (3.5 - (-4))^2$$

$$\Rightarrow 7.5^2$$

$$\Rightarrow 56.25$$

$\therefore$  The value of  $A^2 + B^2 - 2AB$  is 56.25.

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### 34. Answer: d

#### Explanation:

Given:

$$m : n = 5 : 4$$

Calculation:

Let's suppose,  $m = 5k$  and  $n = 4k$ .

$$\text{Now, } (m^2 + n^2) : (m^2 - n^2)$$

$$\Rightarrow (25k^2 + 16k^2) : (25k^2 - 16k^2)$$

$$\Rightarrow 41 : 9$$

$\therefore$  The value of  $(m^2 + n^2) : (m^2 - n^2)$  is 41 : 9.

---

**35. Answer: c**

**Explanation:**

Given:

A sum of money is distributed among A, B and C in the ratio 8 : 4 : 3.

Calculation:

Let's suppose, the respective shares of A, B, and C are 8k, 4k, and 3k.

$$D's \text{ share} = 8k \times \frac{9}{(9 + 7)} = 4.5k$$

Now, the ratio of the share of C to that of D

$$\Rightarrow 3k : 4.5k$$

$$\Rightarrow 3 : 4.5$$

$$\Rightarrow 2 : 3$$

$\therefore$  The ratio of the share of C to that of D is 2 : 3.

---

**36. Answer: d**

**Explanation:**

Given:

The average age of 3 girls is 24 years and their ages are in the proportion of 7 : 8 : 9.

Concept used:

Total = Average  $\times$  Number of entities

Calculation:

Sum of the age of 3 girls =  $3 \times 24 = 72$

Now, the age of the eldest girl =  $72 \times 9 / (7 + 8 + 9) = 27$  years

$\therefore$  The age of the eldest girl is 27 years.

---

### 37. Answer: d

**Explanation:**

Given:

Rate of interest = 6% p.a.

Time = 8 months =  $8/12$  years

Simple interest = Rs. 250

Concept used:

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

Amount =  $P + SI$

where

P = Principal amount

R = Rate of interest per year

T = Time in years

Calculation:

Let the principal amount be P.

According to the concept,

$$(P \times 6 \times 8/12)/100 = 250$$

$$\Rightarrow P = (250 \times 100)/(6 \times 8/12)$$

$$\Rightarrow P = 6250$$

$\therefore$  The sum invested in Rs. 6,250.

### 38. Answer: b

#### Explanation:

Given:

The cash difference between the selling prices of an article at a profit of 8% and at a loss of 4% is Rs. 54.

Concept used:

1. Selling Price = Cost Price  $\times$  (1 + Gain%)

2. Selling Price = Cost Price  $\times$  (1 - Loss%)

Calculation:

Let the cost price of the article be Q.

According to the concept,

$$Q(1 + 8\%) - Q(1 - 4\%) = 54$$

$$\Rightarrow Q(1.08 - 0.96) = 54$$

$$\Rightarrow Q = 54/0.12$$

$$\Rightarrow Q = 450$$



∴ The cost price of the article Rs. 450.

**39. Answer: b**

**Explanation:**

Given:

A certain number of identical spheres are formed by melting a large sphere of radius 28 cm.

The surface area of each small sphere is  $2464 \text{ cm}^2$ .

Concept used:

1. Volume of a sphere =  $\frac{4\pi R^3}{3}$  (R is the radius of the sphere)
2. The curved surface of a sphere =  $4\pi R^2$  (R is the radius of the sphere)
3. Total volume of the small spheres must add up to the volume of the larger sphere.

Calculation:

Let the radius of each small sphere be  $r$  cm.

According to the concept,

$$4\pi r^2 = 2464$$

$$\Rightarrow r^2 = 2464 \div 88/7$$

$$\Rightarrow r^2 = 196$$

$$\Rightarrow r = 14$$

$$\text{Volume of each smaller sphere} = \left(\frac{4}{3} \times \pi \times 14^3\right) \text{ cm}^3$$

Let's suppose, N number of small spheres can be made.

According to the concept,

$$N\left(\frac{4}{3} \times \pi \times 14^3\right) = \left(\frac{4}{3} \times \pi \times 28^3\right)$$

$$\Rightarrow N \times 14^3 = 2^3 \times 14^3$$

$$\Rightarrow N = 8$$

$\therefore$  The number of small spheres formed if the surface area of each small sphere is  $2464 \text{ cm}^2$  is 8.

**40. Answer: d**

**Explanation:**

Given:

The marked price of a laptop is Rs. 65,000.

The laptop is sold at a discount of 20%.

A profit of 30% is made through the sale.

Concept used:

1. Selling Price = Cost Price  $\times$  (1 + Gain%)

2. Selling Price = Marked Price  $\times$  (1 - Discount%)

Calculation:

Selling price of the laptop =  $65000(1 - 20\%) = \text{Rs. } 52000$

Cost price of the laptop =  $52000/(1 + 30\%) = \text{Rs. } 40000$

$\therefore$  The cost price of the laptop is Rs. 40,000.

**41. Answer: d**

**Explanation:**

Calculation:

Now, the average number of computers sold per month during this period

$$\Rightarrow (160 + 220 + 310 + 180 + 230 + 150)/6$$

$$\Rightarrow 208.33 \approx 208$$

$\therefore$  The average number of computers sold per month during this period is 208.

**42. Answer: a**

**Explanation:**

Given:

In a city 60% of the population are males and the rest are females.

The ratio of married males to non-married males is 5 : 7 and the ratio of married females to non-married females is 2 : 3.

Calculation:

Let the total population be  $600q$ .

$$\text{Number of married male population} = 600q \times 60\% \times \frac{5}{5+7} = 150q$$

$$\text{Number of married female population} = 600q \times (100 - 60)\% \times \frac{2}{2+3} = 96q$$

$$\text{Now, the required percentage of the total population is married} = \frac{150q+96q}{600q} \times 100\% = 41\%$$

$\therefore$  41% of the total population is married.

**43. Answer: d**

**Explanation:**

Given:

The simple interest on a sum of money invested for a period of 10 years is equal to  $\frac{4}{5}$ th of the sum invested.

Concept used:

$$\text{Simple Interest, SI} = (P \times R \times T)/100$$

$$\text{Amount} = P + \text{SI}$$

where

P = Principal amount

R = Rate of interest per year

T = Time in years

Calculation:

Let the sum invested and rate of interest be P and R% respectively.

According to the concept,

$$(P \times R \times 10)/100 = 4P/5$$

$$\Rightarrow R/10 = 4/5$$

$$\Rightarrow R = 8$$

$\therefore$  The rate of interest is 8%.

---

**44. Answer: c**

### Explanation:

Given:

A 1 alone can complete a piece of work in 14 days, A 2 alone can complete the same work in 21 days, and A 3 alone can complete the same work in 28 days.

The three worked together, completed the work, and received a total payment of Rs. 1,040 for doing the work.

Concept used:

1. Total work = Efficiency (Work done per day)  $\times$  Total time taken

2. The wage amount is already distributed among the workers according to the ratio of their work done.

Calculation:

$$\text{LCM}(14, 21, 28) = 84$$

Let the total work be 84 units.

$$\text{Efficiency of } A_1 = 84/14 = 6 \text{ units}$$

$$\text{Efficiency of } A_2 = 84/21 = 4 \text{ units}$$

$$\text{Efficiency of } A_3 = 84/28 = 3 \text{ units}$$

So, the ratio of work done by  $A_1$ ,  $A_2$  and  $A_3 = 6 : 4 : 3$

$$\text{Now, } A_2 \text{'s share in the total payment received} = 4/(6 + 4 + 3) \times 1040 = \text{Rs. } 320$$

$\therefore$  A 2 's share in the total payment received is Rs. 320.

---

45. Answer: a

### Explanation:

Given:

Ravi buys 5 pens at Rs. 150 each, 2 pencils at Rs. 100 each, and 3 notebooks at Rs. 250 each.

Concept used:

Total = Average  $\times$  Number of entities

Calculation:

Total expenditure =  $(5 \times 150 + 2 \times 100 + 3 \times 250) = 1700$

Total articles =  $5 + 2 + 3 = 10$

Now, the average expenditure incurred by Ravi per article =  $1700/10 = \text{Rs. } 170$

$\therefore$  The average expenditure incurred by Ravi per article is Rs. 170.

---

46. Answer: d

Explanation:

Given:

Points A and B are 200 km apart.

A person starts from A at 10 a.m. at a speed of 10 km/h and goes towards B.

Another person starts from B at 11 a.m. at a speed of 20 km/h and goes towards A.

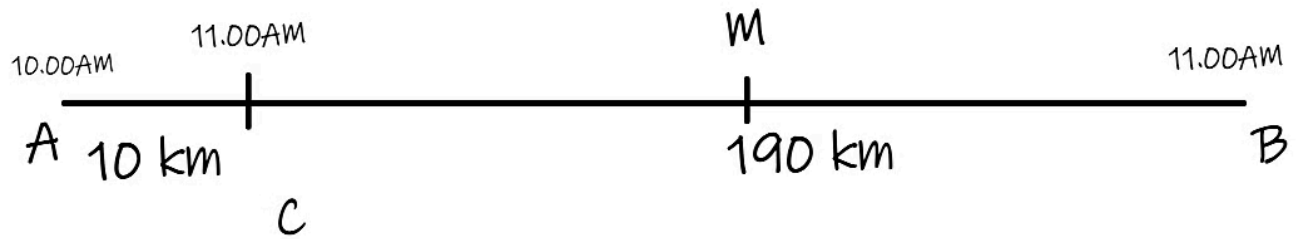
Concept used:

1. Distance = Speed  $\times$  Time

2. Relative speed is the sum of their individual speeds while two objects come from opposite directions.

3. Time taken to meet for two objects coming towards each other = Intermediary distance  $\div$  Relative speed

Calculation:



200 km

When the second person started from point B at 11.00 a.m., the first person was at C.

Time between 11.00 a.m. and 10.00 a.m. = 1 hour

So, AC = 10 km (Since the speed of the first person is 10 km/h)

So, BC = 200 - 10 = 190 km/h

Hence, time taken by them two to meet at M =  $190 / (20 + 10) = 6\frac{1}{3}$  hours

Now, they will meet at

⇒ 11.00 a.m. +  $6\frac{1}{3}$  hours

⇒ 05.00 p.m. +  $1/3$  hours

⇒ 05.00 p.m. +  $1/3 \times 60$  minutes

⇒ 05.00 p.m. + 20 minutes

⇒ 05.20 p.m.

∴ They will meet at 05.20 p.m.

47. Answer: c

**Explanation:**

Given:

A boat can travel in still water at 7 km/h and the speed of the stream is 3 km/h.

Concept used:

1. While rowing upstream, the upstream speed is the difference between the speed of the boat in still water and the speed of the flow.
2. While rowing downstream, the downstream speed is the addition of the speed of the boat in still water and the speed of the flow.
3. Distance = Speed × Time

Calculation:

$$\text{Upstream speed} = 7 - 3 = 4 \text{ km/h}$$

$$\text{Downstream speed} = 7 + 3 = 10 \text{ km/h}$$

Now, the total time taken by the boat to travel 60 km upstream and return to the starting point

$$\Rightarrow 60/4 + 60/10 = 21 \text{ hours}$$

∴ The total time taken by the boat to travel 60 km upstream and return to the starting point is 21 hours.

---

**48. Answer: b**

**Explanation:**

Given:

The length of a rectangle is increased by  $16\frac{2}{3}\%$  i.e.  $\frac{50}{3}\%$ .



Concept used:

Area of a rectangle = Length  $\times$  Breadth

Calculation:

Let the initial length of the rectangle be  $90x$  and the breadth be  $y$ .

Area of the rectangle =  $90xy$

After  $\frac{50}{3}$  % increment, the length =  $90x(1 + \frac{50}{3} \%) = 105x$

Since the area remains unchanged, the breadth becomes =  $90xy/105x = 6y/7$

Now, % decrease in breadth =  $\frac{y - \frac{6y}{7}}{y} \times 100\% = 14.285\% \approx 14.29\%$

$\therefore$  Its breadth should decrease by 14.29% so that the area of the rectangle remains unchanged.

---

49. Answer: c

Explanation:

Calculation:

Now, the ratio of the number of teachers who teach English to the number of teachers who teach Chemistry

$\Rightarrow 24\% : 23\%$

$\Rightarrow 24 : 23$

$\therefore$  The ratio of the number of teachers who teach English to the number of teachers who teach Chemistry is 24 : 23.

---

50. Answer: c

**Explanation:**

Given:

$$(0.064)^{123} \div 0.1647 \times 0.434 \times 0.429 = (0.4)^?$$

Concept used:

$$1. A^p \div A^q = A^{p-q}$$

$$2. A^p \times A^q = A^{p+q}$$

Calculation:

$$(0.064)^{123} \div 0.1647 \times 0.434 \times 0.429$$

$$\Rightarrow ((0.4)^3)^{123} \div ((0.4)^2)^{47} \times 0.434 \times 0.429$$

$$\Rightarrow (0.4)^{369} \div (0.4)^{94} \times 0.434 \times 0.429$$

$$\Rightarrow (0.4)^{369-94} \times 0.4^{(34+29)}$$

$$\Rightarrow (0.4)^{275} \times 0.4^{63}$$

$$\Rightarrow (0.4)^{275+63}$$

$$\Rightarrow (0.4)^{338}$$

$$\therefore (0.064)^{123} \div 0.1647 \times 0.434 \times 0.429 \text{ equals } (0.4)^{338}.$$

51. **Answer: a**

**Explanation:**

The correct answer is 'for'.

★ Key Points

- We need to choose an appropriate preposition for this fill-in-the-blank.
- The given sentence conveys that the mid-day meal programme has been running for a long time span of 21 years.
- In this question, we need a preposition of time, and from the given options, 'for' is the most appropriate one.
- **For** is used to express how long something or someone has been doing something.
- **For** is used to state a period of time and is usually used with a noun or a pronoun.
  - *Example: Susan has been riding this crusader bike **for** three hours.*
- Therefore, from the given usage of the preposition 'for,' the correct answer is option 1.

**Correct sentence:** The Mid-Day Meal Programme has been running for 21 years.

52. Answer: c

**Explanation:**

The correct answer is 'inedible' .

★ Key Points

- The idiom 'Not fit to eat' means **uneatable, not fit, or suitable for eating**.
  - *Example: I suggest you not consume stale food as it is **not fit to eat**.*
- Therefore, from the given meaning and its example sentence, we are clear that the given idiom means **inedible** (जो खाने के लायक न हो; अखाद्य).
- Hence, the correct answer is **option 3**.

53. Answer: c

**Explanation:**

The correct answer is 'Horde' .

★ Key Points

- We need to substitute one word for 'A large group of people, especially the *nomadic*' from the given options :
- Let's explore the **meanings**:
  - **Cavalry** means the part of the army that fought on horses in the past; the part of the modern army that uses heavily protected vehicles. ( विगत युग की घुड़सवार सेना; आधुनिक युग की कड़ी सुरक्षा वाहनों का उपयोग करने वाली सेना)
  - **Urban means** connected with a town or city. (नगर या क़सबे से संबंधित; शहरी)
  - **Horde means** a very large number of people. (लोगों का झुंड, भीड़)
  - **Hamlet means** a very small village. (बहुत छोटा गाँव; पुरवा, उपग्राम).
- From the given meanings of the given options, only '**horde**' is the one-word substitute for the given group of words.
- Hence, the correct answer is **option 3**.

54. Answer: b

**Explanation:**

The correct answer is '**Inoculate**'.

★ Key Points

- We need to choose the **correct spelling** of the word as our marked option.
- Here, the word is '**Inoculate**' which means to inject a weak form of a disease into their body as a way of protecting them against the disease. (मनुष्य या पशु को इंजेक्शन लगाकर उसका रोग से बचाव करना, बीमारी से बचाव के लिए मनुष्य या पशु को टीका लगाना)
  - **Example:** All the children have been **inoculated** against COVID.
- Therefore, only **option 2** is having the correct spelling.
- Thus, the correct answer is **option 2**.

55. Answer: c

**Explanation:**

The correct answer is 'Anything from the past that is not significant or important anymore' .

★ Key Points

- The given idiom ' **Water under the bridge**' means something that happened in the past and cannot now be changed.
  - *Example: Don't raise this past matter as we have kept this matter **water under the bridge**.*
- Therefore, from the given meaning of the idiom, it means 'Anything from the past that is not significant or important anymore'.
- Hence, the correct answer is **option 3**.

---

56. Answer: c

Explanation:

The correct answer is 'has being of primary' .

★ Key Points

- The given sentence is not grammatically correct.
- There is an error in **one segment** of the sentence.
- We need to find that **erroneous segment**.
- The error lies in the usage of confusing words '**been**' and '**being**'.
- As a rule, the word '**been**' is always used after has /have whereas '**being**' is never used after has/have. It is used after 'be'.
- Therefore, from the above-said rule, we can't use '**being**' in the given sentence. We need to substitute it with '**been**'.
- Hence, the correct answer is **option 3**.

---

57. Answer: b

Explanation:

The correct answer is 'An achievement to be proud of' .

★ Key Points

- The given question is an example of an **idiom in context** question.
- The given idiom '**A feather in his cap**' means an achievement to be proud of '.
  - **Example:** *This award is another feather in his cap.*
- Therefore, from the given meaning and the example, it is clear that the correct meaning is 'An achievement to be proud of'.

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

---

**58. Answer: a**

**Explanation:**

The erroneous segment is 'In spite of hardly work' .

★ Key Points

- The error lies in part 1 of the sentence.
- The given sentence is not **grammatically correct**.
- 'In spite of hardly work' is the **erroneous** segment.
- Instead of '**hardly**' , we need to use 'Hard' before the word 'work'.
- **Hardly** is an adverb meaning "**almost not**". **Hardly** is not the adverb form of the adjective hard. The adverb form of **hard** is also hard.
  - **Example:** *He wore a big skull hat that covered his head and you could hardly see his face.*
- The adverb "**hard**" intensifies the verb. It means "**a lot**" or "**with great energy & determination**".
  - **Example:** *He is focused and is working **hard** to achieve his set goal.*
- Therefore, from both these sentences and the usage of adverbs, it is clear why 'hard' is correct here.
- Hence, the correct answer is **option 1**.

59. Answer: d

### Explanation:

The correct answer is 'Quick'.

#### ★ Key Points

- This is a **fill-in-the-blanks** question.
- We need to fill in the **relevant word** given in one of the options.
- The given sentence **implies** that the person came back from the game and he took a swift shower and was ready for the evening.
- The synonym of swift is given as '**quick**' in one of the options.
- **Quick** means happening or done with great speed, or lasting only a short time.
  - *Example* : I had a **quick** dinner and left the house.
- Hence, the correct answer is **option 4**.

60. Answer: a

### Explanation:

The correct answer is 'Atonement'.

#### ★ Key Points

- We need to substitute 'An action of making amends for a wrong or injury' with one word from the **given options**:
- Let us explore the meanings of the given options :
  - **Atonement** means something that you do to show that you are sorry for something bad that you did (प्रायश्चित्त)
  - **Redemption** means (according to the Christian religion) the action of being saved from evil (ईसाई धर्म में) दुष्कर्म से बचाव या पाप से सुरक्षा या मुक्ति
  - **Rite** means a ceremony performed by a particular group of people, often for religious purposes वर्ग विशेष द्वारा (प्रायः धार्मिक प्रयोजन से) किया गया अनुष्ठान

- **Perjury** means the act of telling a lie in a court of law (न्यायालय में असत्य कथन, झूठी गवाही, शपथ-भंग)

Therefore, from the above-given meanings, it is clear that '**Atonement**' is the one word for the given group of words.

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

---

61. **Answer: d**

**Explanation:**

The correct answer is '**Intervene**' .

★ **Key Points**

- The given word '**Intervene**' means to become involved intentionally in a difficult situation in order to change it or improve it.(बीच में आना)
  - **Example** : *I am nobody to **intervene** in this matter.*
- We need to choose its **synonym** from the given options.
- The marked option '**Arbitrate**' means to settle an argument between two people or groups after hearing the opinions and ideas of both.(किसी झगड़े में मध्यस्थता करना).
- From the given **meaning** and the example sentence above, it is clear that '**Arbitrate**' and '**Intervene**' are synonyms.

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

---

62. **Answer: d**

**Explanation:**

The correct answer is '**Evil**' .

★ **Key Points**



- The given word 'Sinister' means threatening or portending evil, harm, or trouble (बुरा लगने वाला या अनर्थकारी; अमंगलसूचक).
  - Example : *It was a **sinister** provoking move on his part.*
- The marked option **Evil** means morally bad; causing trouble or harming people. (बुरा, दुष्ट, पापी; लोगों को दुखी करने वाला)
- From the given meaning and example sentence, it is obvious that '**Sinister**' and '**Evil**' are synonyms.
- Hence, the correct answer is option 4.

63. Answer: c

**Explanation:**

The correct answer is 'They have legitimate grounds to engage users'.

★ Key Points

- This is a **spelling-in-context** question.
- We need to choose an **appropriate option** that rectifies the incorrectly spelled words in the given sentence.
- Here, the spellings of 'legitimete' and 'engagee' are erroneous in the given question.
- Their correct spellings are '**Legitimate**' and '**engage**' respectively.
- These two-word spellings are correct in marked **option number 3**.
- Therefore, the correct answer is **option 3**.

★ Additional Information

- **Legitimate** means reasonable or acceptable. (तर्कसंगत या स्वीकार्य).
- **Engage** means to interest or attract somebody. (आकृष्ट करना या (काम में) लगाना)

64. Answer: d

**Explanation:**

The correct answer is 'No improvement required'.

★ Key Points

- This is a sentence improvement question.
- We need to improve the underlined segment if there is an error in it.
- Here, the underlined segment is a phrasal verb 'carry out'.
- **Carry out** means to perform or complete a job or activity.
  - *Example: He was appointed by Raw to **carry out** that mission.*
- **From** the above meaning of the phrasal verb and its example sentence, it is in context with the given sentence and explains the sense of the sentence.
- Therefore, in this sentence, there is no grammatical error and it needs no improvement.
- Hence, the correct answer is **option 4**.

---

65. Answer: a

**Explanation:**

The correct answer is 'is more concerned with'.

★ Key Points

- This is a sentence improvement question.
- We need to correct the underlined segment if it requires any improvement.
- Here, 'are more concern to ' is our underlined segment.
- The noun is **singular here** and it requires a **singular helping verb (is)** with it.
- Here, there is an error in the usage of the phrasal verb 'concerned to'.
- The correct phrasal verb is 'concerned with' and it should be used when describing something that someone is interested in, involved with, or a part of.
- Here the context is that the press gallery is more involved and interested in public affairs than private ones and hence, 'concerned with' is the correct usage.
- Therefore, the correct answer is **option 1**.

66. Answer: c

### Explanation:

The correct answer is 'Aggravate'.

#### ★ Key Points

- The given word '**Abate**' means to become less strong; to make something less strong. (प्रकोप या प्रभाव का कम हो जाना या कम करना; धीमा होना)
  - **Example:** *Zandu pancharishta is a great anecdote to **abate** the digestive issues of the human body.*
- The marked option '**Aggravate**' means to make something worse or more serious (बिगाड़ देना; बदतर करना या होना, अधिक गंभीर बनाना)
- From the given meanings of both these words, it is clear that they are **antonyms**.

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

67. Answer: a

### Explanation:

The correct answer is 'hidden'.

#### ★ Key Points

- The given word '**obvious**' means easily seen or understood; clear (जो आसानी से दिखाई दे या समझ में आए; स्पष्ट).
  - **Example:** *The answer to this question seems **obvious** to me.*
- The marked option 'Hidden' means **being out of sight or not readily apparent**.
- **From** the given meaning and example sentence, it is obvious that 'obvious' and 'hidden' are antonyms.
- Hence, the correct answer is **option 1**.

68. Answer: d

**Explanation:**

The correct answer is '**Aquatic**' .

★ Key Points

- We need to substitute 'Animals that live in water' with **one word** from the given options:
- Let us explore the **meanings** of the given options :
  - **Nocturnal** means being active or happening at night rather than during the day.(रात में जागने वाले और दिन में सोने वाले, निशाचर और दिवाशायी)
  - **Aerial** means existing or living or growing or operating in the air(हवाई)
  - **Terrestrial** means connected with the planet Earth(भौमिक, स्थलीय)
  - **Aquatic** means growing or living in or frequenting water(जल में या जल के निकट रहने या होने वाला).

Therefore, from the above-given meanings, it is clear that '**Aquatic**' is the one word for the given group of words.

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

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69. Answer: d

**Explanation:**

The correct answer is '**gentleness**' .

★ Key Points

- The given question is an **antonym in context** question.
- Here, we need to choose an **appropriate option** which is the antonym of underlined word '**brutality**'.

- **Brutality** means very cruel and violent behavior. (क्रूर और हिंसापूर्ण व्यवहार, नृशंस आचरण, क्रूरता, बर्बरता)
  - **Example**: The brutality of the crime has appalled the public.
- The marked option '**gentleness**' means the quality of being calm, kind, or soft. (सौम्यता)
- From the given meaning of the marked option and the meaning of the underlined word, it is clear that they are **antonyms**.

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

### ★ Additional Information

- **Ferocity** means the state of being violent and frightening. (हिंसक और भयावह होने की अवस्था या भाव)
  - **Example** - The **ferocity** of the attack shocked a lot of people.
- **Cruelty** means causing pain or suffering to others. (दूसरों को पीड़ा पहुँचाना)
  - **Example** - The farmer was accused of **cruelty** to animals.
- **Sensuality** means the enjoyment, expression or pursuit of physical, especially sexual, pleasure. (अभिव्यक्ति या शारीरिक, विशेष रूप से यौन, आनंद की खोज)
  - **Example** - I love the **sensuality** of the cello.

70. Answer: b

### Explanation:

The correct answer is 'No error'.

### ★ Key Points

- We need to **find out any errors** in this sentence.
- There is no spelling mistake in this given sentence.
- The tense **usage** is also proper in this given sentence.
- We **can't identify any errors** in the given parts of the sentence as given in the options.
- Therefore, there is no error and the answer is **option 2**.

71. Answer: a

Explanation:

The correct answer is **which** .

★ Key Points

- The given sentence '*Endurance was the three-masted ship in (1) \_\_\_\_\_ Sir Ernest Shackleton and a (2) \_\_\_\_\_ of 27 men sailed for the Antarctic on the 1914–1917 Imperial Trans-Antarctic Expedition.*' requires an appropriate word from the given options for the **blank number 1**.
- Let us explore the given options :
  - **Which** is a **relative pronoun** that is used to refer to both persons and things. Pronoun 'which' is also the object of the preposition in prepositional phrases like in which, of which.
  - **Who** is used for the person in the subjective case? Basically, it is used to ask questions.
  - **That** is a singular demonstrative pronoun. It is used to point out something specific within a sentence. That is used to point out things that are far away.
  - **"Where"** is a word that we use to point to a specific place or situation. Most commonly, it's used as an adverb, and sometimes it is used as a conjunction.
- Here, which is used after in as '**in which**' ."**In which**" is a combination of the preposition "in" and a relative pronoun, "which." We use '**in which**' to introduce a relative clause after a noun that refers to a place or to a time.
- Therefore, here '**which**' is the most appropriate word for the blank number 1.
- Hence, the correct answer is **option 1**.

---

72. Answer: c

Explanation:

The correct answer is **crew** .

★ Key Points

- The given sentence ' *Sir Ernest Shackleton and a (2) \_\_\_\_\_ of 27 men sailed for the Antarctic on the 1914–1917 Imperial Trans–Antarctic Expedition.* requires an **appropriate word** from the given options for the **blank number 2** .
- The marked option '**crew**' means all the people who work on a ship, aircraft, etc.
- In the given sentence, **including** Sir Ernest Shackleton, it was a crew of **28** men who sailed for the Antarctic on the 1914–1917 Imperial Trans–Antarctic Expedition.
- Therefore, the correct answer is **option 3**.

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73. **Answer: b**

**Explanation:**

The correct answer is '**launched**' .

★ Key Points

- The given sentence ' *The ship, originally named Polaris, was built at Framnaes shipyard and (3) \_\_\_\_\_ in 1912 from Sandefjord in Norway.* ' requires an **appropriate word** from the given options for the **blank number 3**.
- Let us explore the given options:
  - **Released means** to allow somebody/something to be free.(मुक्त करना)
  - **Launched means** to send a ship into the water or a spacecraft into the sky.(जहाज़ को पानी में उतारना)
  - **Started means** to begin at one point and then move to another in distance or range.
  - **Recovered means** to become well again after you have been ill.(बीमारी के बाद स्वास्थ्य लाभ करना).
- Therefore, from the given meaning of the given options, it is obvious that the **ship was launched into the water in 1912** from Sandefjord in Norway.
- Hence, the correct answer is **option 2**.



#### 74. Answer: b

##### Explanation:

The correct answer is 'was' .

##### ★ Key Points

- The given sentence '*the ship (4) \_\_\_\_\_ bought by Shackleton in January 1914 for the expedition, which would be her first (5) \_\_\_\_\_*' requires an **appropriate word** from the given options for the **blank number 4**.
- **Here, we** need to choose an option that fits well in the given sentence tense-wise.
- As the sentence is in the simple past tense, we will use '**was**' or '**were**' in the given blank.
- **Was** is used in the given sentence as per the subject-verb agreement since the subject here is **singular**.
- **Therefore**, the correct answer is **option 2**.

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#### 75. Answer: a

##### Explanation:

The correct answer is 'voyage' .

##### ★ Key Points

- The given sentence '*the ship (4) \_\_\_\_\_ bought by Shackleton in January 1914 for the expedition, which would be her first (5) \_\_\_\_\_*' requires an **appropriate word** from the given options for the **blank number 5**.
- The marked option '**voyage**' means a long journey, especially by ship. (लंबी समुद्री यात्रा ).
  - **Example:** *She was a young sailor on her first sea voyage.*



- From the given meaning and the example sentence, it is clear that '**voyage**' fits well in the given context as it is used for a long journey, especially by ship.
- Therefore, the correct answer is **option 1**.

76. **Answer: c**

**Explanation:**

The correct answer is Option 3.

★ Key Points

- The **Seventh schedule** of the **Indian Constitution** deals with the **division of powers** between **the union and the states in terms of the list**.
- The **Seventh Schedule** to the **Constitution of India** defines and specifies the **allocation of powers and functions between Union & States**.
- It contains **three** lists:
  - **Union List,**
  - **State List and**
  - **Concurrent List**
- **7th Schedule of Indian Constitution** – Union List had **97 subjects**. Now, it has **100 subjects**.
- **88th Amendment** added a new subject in the **Union List** called '**taxes on services**.'
- The state list has **61 subjects**. Earlier, it had **66 items**.
- The **69th Constitutional Amendment Act of 1991** made special provisions in relation to National Capital. Laws cannot be made by the Delhi government on three subjects under State List named as – **Public Order, Police & Land**.
- The concurrent list has **52 subjects** enumerated under it.

★ Additional Information

- There are **twelve schedules** of the **Indian Constitution**.
  - The **4th schedule of the Indian constitution** deals with the **allocation of seats** in the **Upper House or Rajya Sabha**.

- This schedule contains the **number of seats** represented in **Rajya Sabha** from each state and **Union Territory**.
- It deals with **Articles 4** and **Article 80**.
- The Council of States has a maximum number of **250 seats**, with **12 nominated members** by the **President** and **238 representing the states** and **two Union territories**, **Delhi** and **Puducherry**.
- Thus, we can say that the **fourth schedule** of **Indian Constitution** is associated with **Council of States**.
- **9th Schedule:**
  - It became a part of the Constitution in the First Constitutional Amendment Act, 1951.
  - It contains a list of central and state laws which cannot be challenged in courts.
  - Currently, 284 such laws are shielded from judicial review.
  - It was created by the new Article 31B which shields specific laws or enactments.
  - Article 31A was brought in to protect laws related to agrarian reform and for abolishing the Zamindari system.
- The 10th Schedule of the Indian Constitution (anti-defection law) is designed to prevent political defections prompted by the lure of office or material benefits or other like considerations.
  - The Anti-defection law was passed by Parliament in 1985 and reinforced in 2002.
  - The 10th Schedule of the Indian Constitution popularly referred to as the 'Anti-Defection Law' was inserted by the 52nd Amendment (1985) to the Constitution.
  - 'Defection' has been defined as, "To abandon a position or association, often to join an opposing group".

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**77. Answer: c**

**Explanation:**

The correct answer is Punjab

★ Key Points

- The protection of monuments and sites is looked at by the National Monuments Authority (NMA) which comes under the Ministry of Culture.
  - It is set up under the **Ancient Monuments and Archeological Sites and Remains (AMASR) Act, 1958** and was amended in 2010.
- As per the act, the NMA is authorized to categorize all the protected monuments and areas declared of National importance.
- **Centrally protected monuments fall under the AMASR act and Serai Nurmahal, located in Punjab is one of the monuments that is protected under the act. Hence option 3 is correct.**
- It was built by Noor Jahan, the wife of Mughal Emperor Jahangir in around 1618 AD.

★ Additional Information

- In 2017, the AMASR Amendment Bill was passed in the Lok Sabha which allows the government to take up the infrastructure within the prohibited areas around the protected monuments.
  - This bill allowed the central government to allow public works on the recommendations of the NMA.
- Other centrally protected monuments are listed below:

Red Fort, Delhi	Agakhan Palace, Maharashtra	Taj Mahal, Agra
Jore Bangla Temple, West Bengal	Madan Mohan Temple, Uttar Pradesh	Iravataneshwara Temple, Tamil Nadu
Gulbarga Fort, Karnataka	Gulab Bari, Uttar Pradesh	Sri Soumyakeshava Temple, Karnataka
Sri Brahmapurishwara Temple, Tamil Nadu		

78. Answer: a

## Explanation:

The correct answer is two

### ★ Key Points

- Open Market Operations (OMO) is conducted by the Reserve Bank of India (RBI) for the sale or purchase of government securities (g-secs), financial assets or bonds issued by the government to the banks in order to adjust the money supply.
  - The RBI does this to regulate the liquidity from the system and to infuse liquidity into the system.
- There are two types of Open Market Operations: Outright Purchase and Repurchase Agreement. Hence option 1 is correct.
  - Outright Purchase or PEMO is a permanent transaction which involves the RBI selling or purchasing securities in the open market to regulate the money supply.
  - A Repurchase Agreement is a short-term agreement that involves the RBI buying and purchasing government securities after a specified date.

### ★ Additional Information

- Open Market Operations are flexible and easily reversible thereby reducing the lags of monetary policy.
- In 1948, the RBI mentioned the OMO purchase for the first time in its Annual Report.
- Government securities or G-Secs are tradable instruments issued by central governments and state governments.
- They are risk-free instruments and can be short-term like Treasury bills (T-bills) with a maturity of less than a year or long-term like government bonds with a maturity of a year or more than a year.

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79. Answer: a

## Explanation:

The correct answer is Rickets.

★ Key Points

- Vitamin D deficiency causes rickets.
- The chemical name of Vitamin D is Cholecalciferol.
- It was discovered by Edward Mellanby.
- It is fat-soluble.
- It is found in Fish, eggs, liver, mushrooms.

★ Additional Information

prepp

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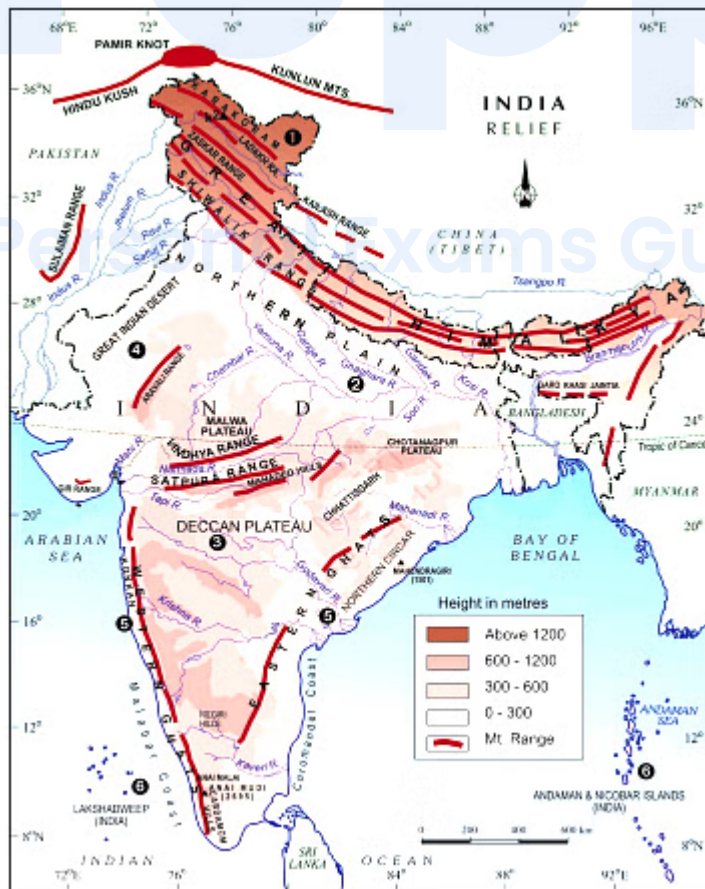
Vitamin	Vitamins	Diseases	Sources
Vitamin A	Retinol, retinal, and four carotenoids	Night-blindness, Hyperkeratosis, and Keratomalacia	Orange, ripe yellow fruits, leafy vegetables, carrots, pumpkin, squash, spinach, liver
Vitamin B1	Thiamine	Beriberi, Wernicke-Korsakoff syndrome	Pork, oatmeal, brown rice, vegetables, potatoes, liver, eggs
Vitamin B2	Riboflavin	Ariboflavinosis	Dairy products, bananas, popcorn, green beans, asparagus
Vitamin B3	Niacin, niacinamide	Pellagra	Meat, fish, eggs, many vegetables, mushrooms, tree nuts
Vitamin B5	Pantothenic acid	Paresthesia	Meat, broccoli, avocados

Vitamin	Vitamins	Diseases	Sources
Vitamin B6	Pyridoxine, pyridoxamine, pyridoxal	Anaemia peripheral neuropathy.	Meat, vegetables, tree nuts, bananas
Vitamin B7	Biotin	Dermatitis, enteritis	Raw egg yolk, liver, peanuts, certain vegetables
Vitamin B9	Folic acid, folinic acid	Megaloblast and deficiency during pregnancy are associated with birth defects, such as neural defects.	Leafy vegetables, pasta, bread, cereal, liver
Vitamin B12	Cyanocobalamin, hydroxycobalamin, methylcobalamin	Megaloblastic anaemia	Meat and other animal products
Vitamin C	Ascorbic acid	Scurvy	Many fruits and vegetables, liver
Vitamin D	Cholecalciferol	Rickets and Osteomalacia	Fish, eggs, liver, mushrooms



Vitamin	Vitamins	Diseases	Sources
80. Answer: a Vitamin E Explanation:	Tocopherols, tocotrienols The correct answer is Option 1.	Deficiency is very rare; mild hemolytic anemia in newborn infants.	Many fruits and vegetables, nuts and seeds
★ Key Points	<p>The Deccan Plateau is a triangular land mass that lies to the south of the river Narmada.</p> <ul style="list-style-type: none"> <li>The Satpura range flanks its broad base in the north, while the Mahadev, the Kaimur hills and the Maikal range form its eastern extensions.</li> </ul>	Bleeding diathesis	Leafy green vegetables such as spinach, egg yolks, liver

- An extension of the Plateau is also visible in the northeast, locally known as the Meghalaya, Karbi-Anglong Plateau and North Cachar Hills.
- It is separated by a fault from the Chotanagpur Plateau.





★ Additional Information

- **Krishna River –**
  - The Krishna river is an **east-flowing river** that originates in **Mahabaleshwar, Maharashtra**.
  - It flows from **Maharashtra, Karnataka, Telangana, and Andhra Pradesh**.
  - The **length of the river** is around **1401 km long**.
  - It is the **fourth largest river** in India after **Ganga, Godavari, and Brahmaputra**.
  - Left bank **tributaries** of Krishna are **Bhima, Dindi, Paleru, and Musi**.
  - Whereas its right bank tributaries are **Koyana, Panchganga, Dudhganga, Venna, Malprabha, Ghatprabha and Tungabhadra**.
- **Kaveri River –**
  - The Kaveri River rises on the **Brahmagiri Hill of the Western Ghats in southwestern Karnataka state**, flows through the states of **Karnataka and Tamil Nadu** in a southeasterly direction for **765 km**, and descends the **Eastern Ghats** in a series of **great falls**.
  - The Kaveri river is joined by **two tributaries** the **Hemavati and Lakshmantirtha**.
  - **Brahmagiri hills** is a **mountain range** in the **Western Ghats of Maharashtra**.
  - **Trimbakeshwar Shiva Temple** is located near the **Brahmagiri hills**.
- **Penna River –**
  - **Penna/Penner** rises on the **Nandi Hills in the Chikkaballapur district of Karnataka**, passing **north to east** through **Karnataka and Andhra Pradesh**.
  - The **Penna rises** in the **Chenna Kesava hill of the Nandidurg range**, in the **Chikkaballapura district of Karnataka**, and flows towards the east eventually draining into **the Bay of Bengal**.
  - The total length of the river from its origin to its outfall in the **Bay of Bengal** is **597 km**.
  - Located in **peninsular India**, the **Pennar** basin extends over the states of **Andhra Pradesh and Karnataka** having an area of **55 thousand Sq.km**.

81. Answer: b

## Explanation:

The correct answer is **Option 2**.

### ★ Key Points

- Prashasti is an Indian genre of inscriptions composed by poets in praise of their rulers.
- The best-known Chalukyan king was Pulakeshin II.
- We come to know about him from a prashasti composed by his court poet, Ravikirti.
- According to Ravikirti, Pulakeshin II led expeditions along both the west and the east coasts.
- Pulakeshin also attacked the Pallava king who took shelter behind the walls of Kanchipuram.
- Thus, we can say that Prashasti of Pulakeshin II was composed by his court poet.

### ★ Additional Information

- Vikramaditya II :
  - Vikramaditya II was the son of Vengi Chalukya king Vijayaditya and heir to the throne.
  - Vikramaditya II kept the power of the Chalukya Empire intact during his time.
- Kirtivarman II -
  - Kirtivarman II also known as Rahappa was the last ruler in the Badami Chalukya dynasty.
  - He succeeded his father Vikramaditya II.

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82. Answer: c

## Explanation:

The correct answer is **Article 20**.

### ★ Key Points

- **Article 20 of the Constitution of India** deals with the **protection in respect of conviction for offences**.
- **Article 20** grants **three** kinds of **protection** against **arbitrary** and **excessive punishment** to an **accused person**, whether **citizen** or **foreigner**.
- **No ex-post-facto law**: No person shall be convicted of any offence except for violation of a new law in force at the time of the commission of the act nor subjected to a penalty greater than that prescribed by the law in force at the time of the **commission of the act**.
- **No double jeopardy**: No person shall be **prosecuted** and **punished** for the same offence more than once.
- **No self-incrimination**: No person accused of any offence shall be compelled to be a witness against himself.
- The protection against double jeopardy is available only in proceedings before a **court of law** or **judicial tribunal**.

### ★ Additional Information

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Article	Description
Article 19	<p>It guarantees six freedoms to every citizen.</p> <ol style="list-style-type: none"> <li>1. Speech and expression</li> <li>2. Assembly</li> <li>3. Association or Unions</li> <li>4. Movement throughout the territory of India</li> <li>5. Residence</li> <li>6. Profession</li> </ol>
Article 20	Protection with respect to the conviction for offences.
Article 21	Protection of life and personal liberty
Article 21 A	Right to education
Article 22	Protection against arrest and detention in certain cases
Article 23	Prohibition of traffic in human beings and forced labor
Article 24	Prohibition of employment of children in factories, etc
Article 21 A	<ol style="list-style-type: none"> <li>1. All children between the age of <b>6 to 14</b> have the right to get free and compulsory education under Article <b>21A</b> of the <b>Indian Constitution</b>.</li> <li>2. <b>Article 21-A</b> and the <b>RTE Act</b> came into effect on <b>1 April 2010</b>.</li> </ol>

83. Answer: d

**Explanation:**

The correct answer is Hunter Commission was appointed by the British Government.

★ Key Points

- The Hunter Commission was appointed after the Jallianwala Bagh massacre.
- After the terrible massacre at Jallianwala Bagh on 13th April 1919, the Legislative Council of the government of India constituted the Hunter Commission to examine the mishap that occurred there.
- On October 14, 1919, the Government of India announced the formation of the Disorders Inquiry Committee.
- The committee was commonly known as Hunter Commission after the name of the chairman, Lord William Hunter. It also had Indian members.
- In the final report submitted in March 1920, the committee unanimously condemned Dyer's actions.
- However, the Hunter Committee did not impose any penal or disciplinary action against General Dyer.

★ Additional Information

Jallianwala Bagh Massacre:

- On April 9, 1919, two nationalist leaders, Saifuddin Kitchlew and Dr. Satyapal were arrested by the British officials without any provocation except that they had addressed protest meetings, and taken to some unknown destination.
- This caused resentment among the Indian protestors who came out in thousands on April 10 to show their solidarity with their leaders.
- Soon the protests turned violent because the police resorted to firing in which some of the protestors were killed. To curb any future protest government put martial law in place and law and order in Punjab was handed over to Brigadier-General Dyer.

- On 13th April, Baisakhi day, a large crowd of people mostly from neighboring villages, unaware of the prohibitory orders in the Amritsar gathered in the Jallianwala Bagh.
- Brigadier-General Dyer arrived on the scene with his men. The troops surrounded the gathering under orders from General Dyer and blocked the only exit point and opened fire on the unarmed crowd killing more than 1000 unarmed men, women, and children.

84. Answer: c

**Explanation:**

The correct answer is Tabla player.

★ Key Points

- Pandit Kishan Maharaj was an Indian tabla player who belonged to the Benares Gharana of Hindustani classical music.
- He also shared the stage with many stalwarts of his time including Ustad Ali Akbar Khan, Pandit Omkarnath Thakur, Pandit Bhimsen Joshi, Bade Ghulam Ali Khan, Ustad Vilayat Khan, Amjad Ali Khan, Girija Devi. Birju Maharaj to name a few.
- In most of his performances, he used to put the big red 'Tika', on the center of his forehead, a trademark style of the Benares Gharana.
- Kishanji was a very versatile musician, he could play all sorts of percussion instruments like pakhawaj, mridangam, dhol, etc.

★ Additional Information

- Famous Tabla players of Benaras Gharana :
  - Anokhelal Mishra
  - Ustad Wajid Ali Tafu Khan
  - Pandit Sharda Sahai
  - Samta Prasad
  - Ramji Mishra

85. Answer: c

**Explanation:**

The correct answer is 1.

★ Key Points

- The atomic mass is a weighted average of all of the isotopes of that element or is the average mass of an atom measured in the atomic mass unit (amu).
- It can also be calculated as the total number of protons and neutrons in an atom.
- Hydrogen contains only one electron and so its atomic number is 1 and one proton.
  - The mass of one proton is  $1.67 \times 10^{-27}$  kg, and so the atomic mass of Hydrogen is  $1.67 \times 10^{-27}$  kg or 1.007 amu or approximately equal to 1. Hence option 3 is correct.
- Out of all the elements, Hydrogen has the lowest atomic mass.

★ Additional Information

- Oganesson is the element that has the highest atomic mass i.e., 294 amu.
- 1 amu is a mass unit equal to exactly 1/12th the mass of one atom of carbon-12.
- The molecular mass of an element is the sum of the atomic masses of all the atoms in a molecule of that element.

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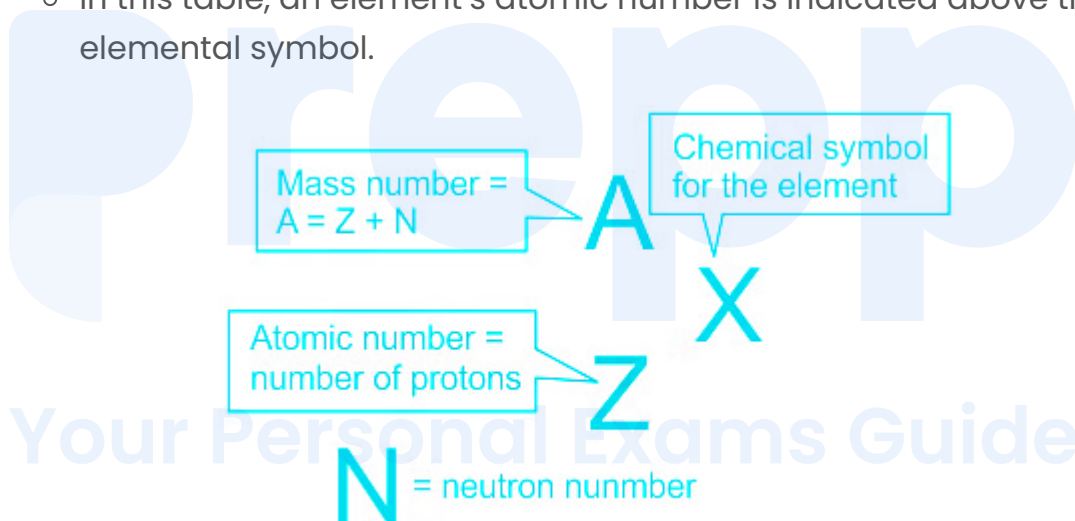
86. Answer: a

**Explanation:**

The correct answer is 24.

★ Key Points

- Atomic number
  - It is the number of a chemical element in the periodic system, whereby the elements are arranged in order of increasing the number of protons in the nucleus.
  - Accordingly, the number of protons, which is always equal to the number of electrons in the neutral atom, is also the atomic number.
  - The atomic number (Z) of an element is the number of protons in the nucleus of each atom of that element. Hence, Option 2 is correct.
  - This means that the number of protons is the characteristic that makes each element unique compared to all other elements.
  - Elements are different because of their atomic number.
  - The periodic table displays all of the known elements and is arranged in order of increasing atomic number.
  - In this table, an element's atomic number is indicated above the elemental symbol.



87. Answer: d

**Explanation:**

The correct answer is Varanasi

★ Key Points

- PM Ayushman Bharat Health Infrastructure Mission is one of the biggest health schemes for healthcare in India which was launched on 25th October 2021.



- It was announced in the Union budget 2021-22 with an outlay of 64,180 crores.
- **Prime Minister Narendra Modi launched this mission in Varanasi, Uttar Pradesh. Hence option 4 is correct.**
- It aims to strengthen public healthcare institutions to deliver primary healthcare and its related services like diagnosis and treatment.
- **To build an IT-enabled disease surveillance system by developing a network of laboratories at the regional level, district level and national levels.**
- Research on Covid-19 and other infections is to be taken to develop core facilities to deliver the one health approach to prevent, detect and treatment of infections.

★ Additional Information

- This mission consists of Centrally Sponsored Scheme and other components like **Ayushman Bharat Health and Wellness Centres in Rural areas (AB-HWCs)**, Urban areas, Block Public Health Units, Integrated District Public Health Laboratories etc.
- **AB-HWCs are proposed for 7 high focus states which include Bihar, Jharkhand, Odisha, Punjab, Rajasthan, Uttar Pradesh and West Bengal.**
  - North Eastern states included in the list are Assam, Manipur and Meghalaya.
- Integrated District Public Health Labs are to be included in all the districts and **Critical Care Hospitals are added in districts where the population is more than 5 lakhs.**

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88. Answer: a

**Explanation:**

The correct answer is 1707.

★ Key Points

- Mughal emperor Aurangzeb

- At the time of the death of Aurangzeb in 1707, the Mughal Empire consisted of 21 Subahs.
- He was the last of the Mughal emperors of India, from 1658 to 1707.
- Aurangzeb was the third son of the emperor Shah Jahan and Mumtaz Mahal.
- His original name was "Muhi-al-Din Muhammad".
- The alternative title "Alamgir" was adopted by Mughal emperor Aurangzeb which means 'world conqueror'.

★ Additional Information

- Aurangzeb conquered Bijapur and Golconda.
- He discontinued the practice of jarokhadarshan, started by Akbar.
- He began a policy of destroying Hindu temples.
- He destroyed Mathura temple and Benares temple.
- In 1679, he reimposed Jizya and pilgrim tax, which was discontinued by Akbar.
- He was also against the Sikhs and he executed the ninth Sikh Guru Teg Bahadur.
- Aurangzeb is held responsible for the decline of the Mughal emperor due to his policies.

89. Answer: b

**Explanation:**

The correct answer is Vishakhapatnam port.

★ Key Points

- Visakhapatnam Port is the deepest land-locked and protected port located in Andhra Pradesh.

Whereas, The Gwadar Port is the deepest seaport of the world, situated on the Arabian Sea at Gwadar in Balochistan province of Pakistan

★ Additional Information

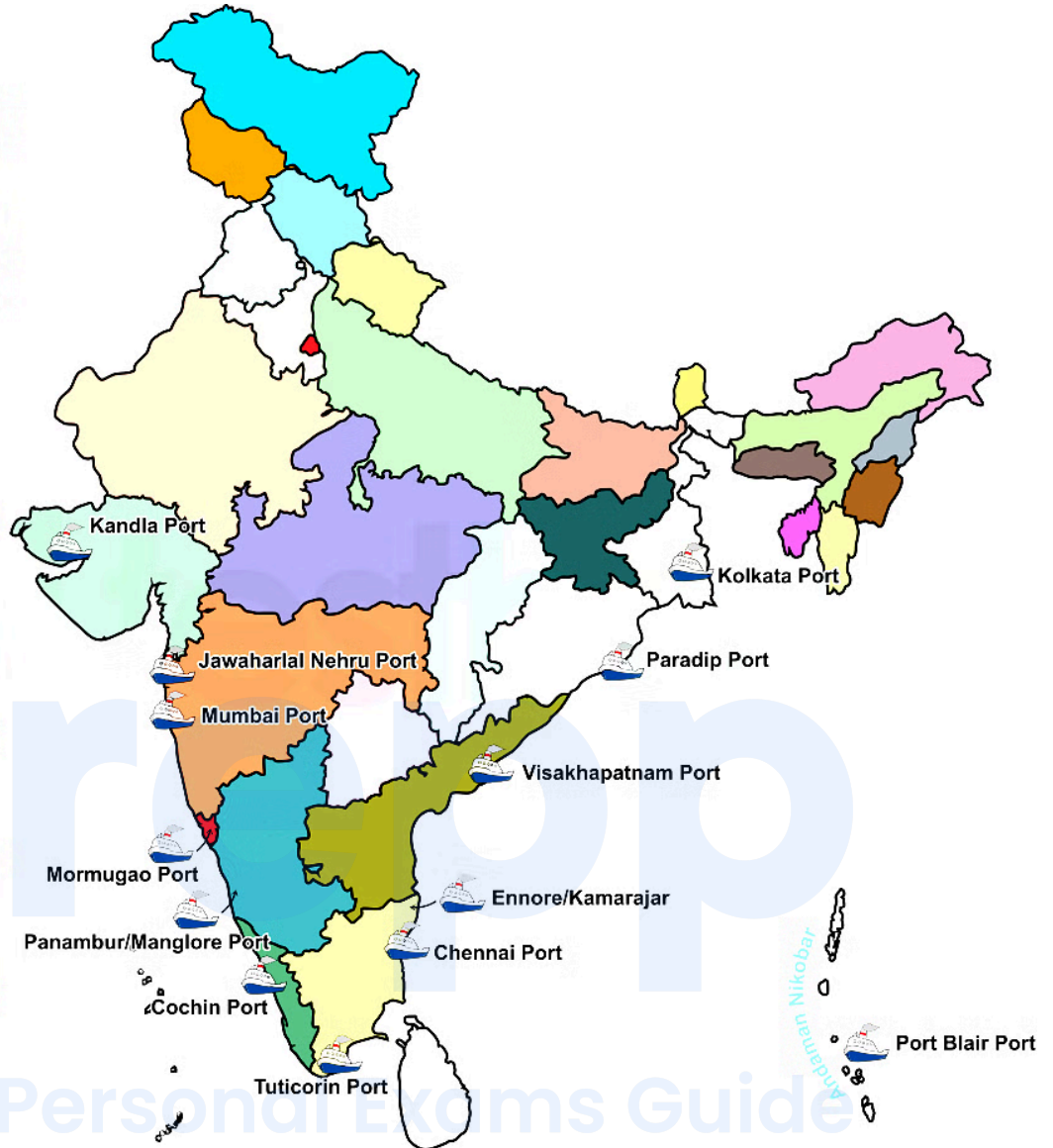
Major ports of India:

<u>On the western coast</u>		<u>On the eastern coast</u>	
Port	State	Port	State
Kanda	Gujarat	Haldia	WestBengal
Jawaharlal Nehru Port	Maharashtra	Paradip	Odisha
Mumbai	Maharashtra	Vishakhapatnam	Andra Pradesh
Mormugao	Goa	Ennore	Tamil Nadu
Mangalore	Karnataka	Chennai	Tamil Nadu
Kochi	Kerela	Tuticorin	Tamil Nadu



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Jammu and Kashmir
Punjab
Himachal Pradesh
Rajasthan
Haryana
Uttarakhand
Uttar Pradesh
Gujarat
Madhya Pradesh
Maharashtra
Goa
Karnataka
Kerala
Tamil Nadu
Andhra Pradesh
Odisha
Chhattisgarh
Telangana
West Bengal
Bihar
Jharkhand
Meghalaya
Sikkim
Assam
Manipur
Mizoram
Arunachal Pradesh
Nagaland
Tripura



90. Answer: d

**Explanation:**

The correct answer is Bharatanatyam.

★ Key Points

- Radha Sridhar received the Sangeet Natak Akademi Award for the year 2018 for her contribution to **Bharatanatyam**. Bharatnatyam dance origin can be traced back to Sadir—the solo dance of temple dancers or devadasis in Tamil Nadu.

- Bharatnatyam is also known as **Dashiattam**.

### ★ Important Points

- Elements of Bharatnatyam
  - **Alarippu**-seeking blessing of god with simple dance steps in rhythm.
  - **Jatiswaram**-Nritta component with devoid expression.
  - **Shabdham**-dramatic element with expressed words.
  - **Varnam**-combination of dance and emotion to express a story.
  - **Padam**-mastery over abhinaya of a spiritual message by the artist.
  - **Jawali**-Its performed at short love lyrics at a fast tempo.
  - **Thillana**-Its is known as the concluding Stage with pure dance(Nritta).

### ★ Additional Information

Prepp

Your Personal Exams Guide

Classical dances	Exponents
<b>Bharatnatyam</b>	T. Balasaraswati, Shanta Rao, Mrinalini Sarabhai, Yamini Krishnamurthy, Kamala, Vyjayanthimala, Sonal man Singh, Samyukta Panigrahi, and Rukhmini Devi.
<b>Kathak</b>	Sitara Devi, Birju Maharaj, Gopi Krishna, Binda din Maharaj, Kalkadin, Uma Sharma.
<b>Kathakali</b>	Guru Krishna Kutty, Kanak Rele and Raghvan
<b>Mohiniattam</b>	Sunanda Nair, Jayaprabha Menon, Pallavi Krishnan, Gopika Verma, Vijayalakshmi and Radha Dutta.
<b>Manipuri</b>	Guru Bipin Sinha, Jhaveri sisters, and T Nadia Singh.
<b>Odissi</b>	Aadya Kaktikar, Aditi Bandyopadhyay, Anita Babu, Arpita Venkatesh and Aruna Mohanty.
<b>Kuchipudi</b>	Bhavana Reddy, Kaushalya Reddy, Raja and Radha Reddy and Yamini Reddy.
<b>Sattriya</b>	Mallika Kandali, Late Moniram Dutta Muktiyar Barbayan, Late Roseshwar Saikia Barbayan, Late Dr. Maheswar Neog , Late Dr Bhupen Hazarika, Late Ananda Mohan Bhagawati

91. Answer: d

**Explanation:**

The correct answer is V Anantha Nageswaran.

★ Key Points

- **V Anantha Nageswaran** was appointed as the Chief Economic Advisor to the Government of India in January 2022.
- He is a former executive with **Credit Suisse Group AG and Julius Baer Group**.
- He will succeed **Krishnamurthy Subramanian**.

★ Important Points

- The Chief Economic Adviser (CEA) in the Finance Ministry, advises the govt on economic matters.
- Traditionally scripts the economic survey presented in Parliament a day before the Union budget presentation.

★ Additional Information

- **S. Ramakrishnan** is a writer from Tamil Nadu, India.
  - He is a full-time writer who has been active over the last 27 years.
- **Krishnamurthy Venkata Subramanian** is an Indian economist.
  - He served as the 17th Chief Economic Adviser to the Government of India.
  - He was the youngest Chief Economic Advisor to the Government of India, serving from 2018 to 2021.
- **Raghuram Govind Rajan** is an Indian economist.
  - He was Chief Economist and director of research at the International Monetary Fund between 2003 and 2006.

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92. Answer: d

**Explanation:**

The correct answer is Both I and II.

★ Key Points

- Most of Ashoka's inscriptions were in Prakrit and were written in the **Brahmi script**.
  - Prakrit inscriptions were written in **Brahmi and Kharosthi scripts**, which even a commoner could read and understand.



- Both Sanskrit and Prakrit were written in the Brahmi script.
- **Hence Statement 1 is correct.**
- **Chanakya**, who is known as Kautilya is traditionally believed to be the minister of Chandragupta.
  - Many of Chanakya's ideas were written down in a book called the **Arthashastra written in Sankrit.**
- **Hence Statement 2 is correct.**

★ Additional Information

- **Ashoka** the Great belonged to the **Maurya Dynasty**.
  - The great ruler Ashoka ruled between **273 – 232 BC**.
  - This dynasty was formed by **Chandragupta Maurya**, in present-day Bihar, after Defeating the Nanda dynasty ruler-Dhanananda.
  - There are 14 Major Rock edicts scattered throughout India
  - Each of these edicts represents part of Ashoka's policy of Dhamma
  - They were meant to teach Ashoka's subjects various philosophical and administrative virtues like tolerance, non-violence, and kingship.
- **Chanakya** was known as **Kautilya or Vishnugupta**, who wrote the Arthashastra, an ancient Indian political treatise, a text dating from around the 3rd century BCE to the 3rd century CE.
  - As such, he is known as India's pioneer in the field of political science and economics, and his work is seen as a major precursor to classical economics.
  - In the 6th century CE, his works were lost near the end of the Gupta Empire and were not rediscovered until the early 20th century.
  - The first Mauryan emperor, Chandragupta, supported Chanakya in his rise to power.
  - He is generally credited for having played an important role in the Maurya Empire's establishment.
  - Chanakya served both Emperor **Chandragupta and his son Bindusara as chief adviser.**

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93. Answer: c



## Explanation:

The correct answer is Rajasthan.

### ★ Key Points

- The folk dance known as the Kalbelia dance is essential to the Kalbelia culture.
- Since the Kalbelias are recognized as traditional snake charmers, this dance is also referred to as the Sapera dance.
- Previously, this nomadic tribe would move from location to location bartering snake venom.
- The Kalbelia is a snake-taming tribe from Rajasthan, India's Thar Desert.
- Men play the instruments and give the music, but only women perform it.
- In 2010, it was added to the list of Intangible Cultural Heritage (ICH) maintained by the United Nations Educational, Scientific, and Cultural Organizations (UNESCO).
- Kathputli, Bhavai, Gair, Kachchhi Ghodi, Chang/Dhamal, Ghoomar, and Terah Taali are some other folk dances of Rajasthan.

### ★ Additional Information

States	Dance
Uttarakhand	Choliya dance
Punjab	Bhangra
Odisha	Dalkhai

94. Answer: b

## Explanation:

The correct answer is Manipur.

### ★ Key Points

- The festival of Yaoshang is considered one of the major festivals of Manipur.
- People from different communities come together to take part in the celebrations.
- A five-day event celebrated on the full moon day of the month of Lamta (February–March)
- The festival is generally celebrated at the same time as Holi.

★ Additional Information

States	Festivals
Uttar Pradesh	Magh fair
Rajasthan	Gdula Festival
Tamil Nadu	Pongal festival

95. Answer: a

**Explanation:**

The correct answer is Hindi.

★ Key Points

- 43.63 percent of Indians speak Hindi as their mother tongue, as per the 2011 census.
- Bengali is second on the list with 8.03 percent speakers.
- Bengali is followed by Marathi at 3rd with 6.86 percent speakers.

★ Additional Information

- The 15th Indian census OR 7th after Independence was conducted in 2011.
- According to the 2011 census
  - Uttar Pradesh (Most populous state).
  - Sikkim (Least populous state).
  - Kerala (The most literate state in India–93.91%)

- Bihar ( Least literate state in India- 63.82% )
- Overall Literacy Rate of India (74.14%).

96. Answer: b

**Explanation:**

The correct answer is 11.

★ Key Points

- Field hockey, also called hockey is an outdoor game played by two opposing teams of 11 players each.
- Players use sticks curved at the striking end to hit a small, hard ball into their opponent's goal.
- It is called field hockey to distinguish it from the similar game played on ice.
- Rules are made by the International Federation of Hockey.
- The total duration of a field hockey match is 60 minutes.
- It is played in four quarters of 15 minutes each.
- It consists of a goalkeeper and 10 field players.
- There are five substitutes on the bench and there is no limit to the number of times a player is allowed to be substituted.
- Apart from the length of the game, there are tied overtime of 5 minutes followed by a shootout.
- **Thus, there are 16 players including substitutes in a Hockey team but on the field only 11.** Hence the correct answer is 11.

97. Answer: b

**Explanation:**

The correct answer is Ammonium hydroxide.

★ Key Points

- The **aqueous solution, ammonium hydroxide**, is created by **saturating water** with **gaseous ammonia**.
- The colorless ammonium hydroxide solution is a **weak basic**.
- It does not **entirely ionize**, leaving the water molecule.
- This solution is employed as a **buffer solution**, or a solution that is used to **modify the pH in a chemical reaction**.
- Because the concentration of **OH<sup>-</sup> ions** in the solution rises, the basicity of the solution also rises.
- A strong reagent with the ability to **dissolve stains** brought on by **vegetable fats, animal fats**, etc. is **ammonium hydroxide**.
- As a result, the substance is effective as a **cleaning agent and readily vaporizes**.
- Thus, it is a component of **detergents for cleaning glass, windows, and other surfaces**.

★ Additional Information

- **Magnesium hydroxide:**
  - Magnesium hydroxide is a **short-term treatment** for adults and children who experience **sporadic constipation**.
  - **Saline laxatives** are a group of drugs that include magnesium hydroxide.
  - It functions by making the **feces retain water**.
- **Sodium hydroxide:**
  - Sodium hydroxide is a chemical that manufacturers utilize to make things like **soap, rayon, paper, explosives, colors, and petroleum products**.
- **Calcium hydroxide:**
  - **Indirect and direct pulp cupping, root dressing, root canal sealant, and apical closure** are all possible uses for calcium hydroxide.

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98. Answer: c

**Explanation:**

The correct answer is Delhi Capitals.

★ Key Points

- Australian cricketer **David Warner** competes internationally.
- He became the fourth player to **twice win the Allan Border Medal in January 2017**.
- The front-runner to head the **Delhi Capitals in the IPL 2023** is David Warner.

★ Additional Information

- **Sunrisers Hyderabad:**
  - **Hyderabad, Telangana, India** is home to the franchise cricket side Sunrisers Hyderabad.
  - **Kalanithi Maran**, a member of the SUN Group, is the franchise's owner.
  - It was **established in 2012**.
- **Royal Challengers Bangalore:**
  - Bengaluru, Karnataka-based Royal Challengers Bangalore is a **franchise cricket team**.
  - **United Spirits** launched it back in **2008**.
- **Punjab Kings:**
  - A cricket franchise team called the Punjab Kings is based in **Mohali, Punjab**.
  - The franchise was founded in **2008** under the name **Kings XI Punjab**.
  - **Mohit Burman, Ness Wadia, Preity Zinta, and Karan Paul** are all co owners.

99. Answer: d

**Explanation:**

The correct answer is Puducherry.

★ Key Points

- Puducherry has the second highest sex ratio as per **India Census 2011**.
- As per Census 2011, Puducherry has a population of **12.48 Lakhs**, an **increase from the figure of 9.74 Lakh in the 2001 census**.
- The sex ratio is the number of females per 1000 males.

- **Sex Ratio:** 1037
- **Child Sex Ratio:** 967

### ★ Additional Information

- The sex Ratio is calculated as the number of females per thousand males in a given population.
- Census is an official enumeration of the population from time to time.
- Census has been conducted every 10 years by the Registrar General and Census Commissioner of India under the Ministry of Home Affairs.
- The 15<sup>th</sup> Indian census was taken in 2011.
- India is the second most populated country in the world.
- The Sex Ratio was 943 females per thousand males in the country, in the 2011 census.
- India has 17.7% of the world's population.
- The population density in India is 382 per km<sup>2</sup>.

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100. **Answer: d**

### **Explanation:**

The correct answer is Ruskin Bond.

### ★ Key Points

- Ruskin Bond is an **Indian author** .
- **The Room on the Roof**, his debut book, was released in **1956** and was awarded the **John Llewellyn Rhys Award** in 1957.
- More than **500 short stories, articles, and novels**, including 69 for children, have been written by Bond.
- The **Sahitya Akademi Prize** was given to him in **1992** for **Our Trees Still Grow in Dehra**.
- In **1999 and 2014**, he received the **Padma Shri and Padma Bhushan**, respectively.

- The well-known author Ruskin Bond wrote **"Roads to Mussoorie"** as a tribute to the city he called home for more than forty years, Mussoorie.

★ Additional Information

Author	Book
Kiran Desai	The Inheritance of Loss, Hullabaloo in the Guava Orchard, India Pack.
Ashwin Sanghi	Keepers of the Kalachakra, The Sialkot Saga · The Krishna Key, Chanakya's Chant, 13 Steps to Bloody Good Wealth.
Amish Tripathi	War of Lanka (Ram Chandra Series ), The Immortals of Meluha (Shiva Trilogy ), Ram - Scion of Ikshvaku.
Ruskin Bond	The Room on the Roof , Vagrants in the Valley, Rusty Runs Away, A Flight of Pigeons, The Sensualist, The Panther's Moon, Once Upon A Monsoon Time .

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