

1. What is the value of x in the following table ?

121	144	132
225	361	285
576	x^2	624

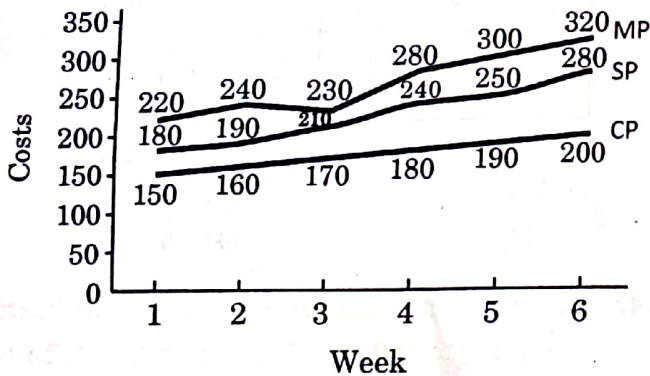
- (1) 24 (2) 26
 (3) 17 (4) 19

2. A bag contains 2 red, 3 black and 4 green balls. If two balls are drawn randomly, what is the probability that both are green ?

- (1) $\frac{1}{3}$ (2) $\frac{1}{6}$
 (3) $\frac{2}{3}$ (4) $\frac{4}{9}$

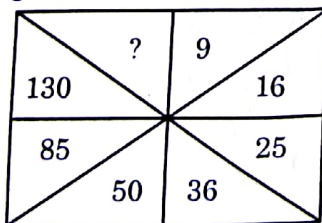
3. The Marked Price (MP), Selling Price (SP) and Cost Price (CP) of a product in Rupees for six weeks are given below. In which of the following weeks, is the percentage of discount more than the percentage of profit ?

(Marked Price > Sale Price > Cost Price)
 MP, SP and CP details in ₹.



- (1) 2 (2) 3
 (3) 4 (4) 1

4. Find the number in place of '?' in the following diagram :



- (1) 185 (2) 175
 (3) 190 (4) 180

5. If α and β are respectively acute angles between the hands of a clock at 3:30 pm and 4:30 pm, then $\alpha : \beta =$

- (1) 2 : 3 (2) 4 : 5
 (3) 5 : 3 (4) 3 : 2

6. Some amount is distributed among four persons A, B, C, D in such a way that $\frac{1}{3}$ rd of

the amount goes to A, $\frac{1}{4}$ th of the remaining amount goes to B, C receives ₹ 1,200 while the remaining $\frac{2}{5}$ th amount goes to D. Then the person who receives the lowest amount is :

- (1) B (2) D
 (3) C (4) A

7. The year 2024 ends with the day :

- (1) Tuesday (2) Thursday
 (3) Friday (4) Monday

8. Let U be the set of all natural numbers up to 300. Let A be the set of all even numbers in U, B be the set of all multiples of 3 in U and C be the set of all multiples of 5 in U.

Using this information, answer the following question.

If a number is chosen at random from U, what is the probability that it is from $A \cap B$?

- (1) $\frac{1}{12}$ (2) $\frac{1}{4}$
 (3) $\frac{3}{5}$ (4) $\frac{1}{6}$

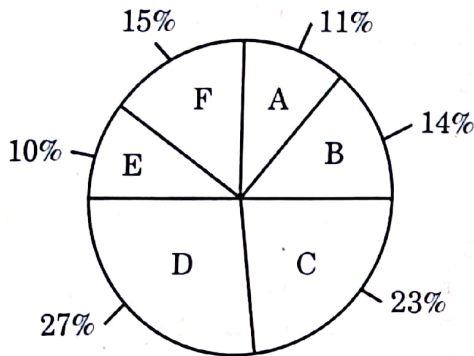
9. Let U be the set of all natural numbers from 1 through 1000. Let A be the set of all multiples of 3 in U, B be the set of all multiples of 5 in U and C be the set of all multiples of 7 in U. Using this information answer the following question.

The number of elements in $A \cup B \cup C$ is :

- (1) 542 (2) 543
 (3) 544 (4) 541



10. The following pie chart represents the details of break-up of revenue generated by a supermarket for the year 2021 – 22. Total revenue generated for the financial year 2021 – 22 is ₹ 25 cr.



- A : Fruits
 B : Vegetables
 C : Grocery
 D : Health Care
 E : Bakery
 F : Personal Care

The supermarket is planning to increase the share of the Groceries revenue by 9% in 2022 – 23. If the revenue of the supermarket is increased by 13% in 2022 – 23, what will be the revenue generated by the Grocery unit in 2022 – 23 ?

- (1) ₹ 9,04,00,000 (2) ₹ 8,12,00,000
 (3) ₹ 8,56,00,000 (4) ₹ 6,49,00,000
11. Vikas is a medical representative and he is supposed to visit six doctors – M, N, P, Q, R and S, exactly once every week. To visit the doctors, Vikas has set up a schedule to visit each of the six doctors during the course of one week according to the following conditions :

- I. He must visit Dr. M before Dr. N and Dr. R.
 II. He must visit Dr. N before Dr. Q.
 III. The third doctor he visits must be Dr. P.

If Vikas visits Dr. S first, which doctor must he visit second ?

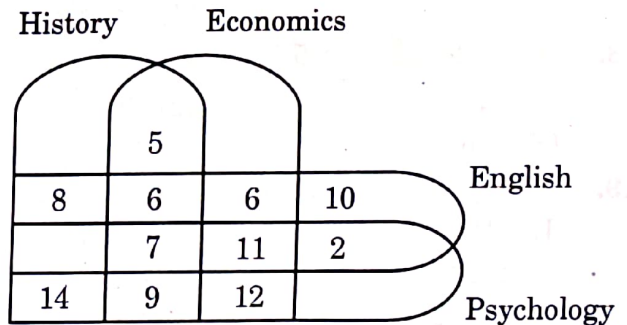
- (1) Dr. N (2) Dr. P
 (3) Dr. Q (4) Dr. M

12. If $a + b$ means a is sister of b.
 $a - b$ means a is brother of b.
 $a \times b$ means a is daughter of b.
 $a \div b$ means a is mother of b.

the relationship $p + q - r \times s \div t$ shows that :

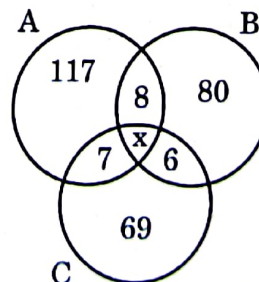
- (1) p, q, r, t are children of s.
 (2) p, q, r are children of t and s.
 (3) p, q, r, s, t are all siblings.
 (4) p, q, r, s are children of t.

13. The following diagram shows the number of students who study History, Economics, English and Psychology. The total number of students studying the given subjects in the given order is 64, 76, 63 and 72 respectively.



How many students study only History ?

- (1) 20 (2) 13
 (3) 14 (4) 15
14. A newspaper agent sells three newspapers A, B and C to 300 persons. If 'x' is the number of persons buying all the three papers, based on the following diagram, what is the value of x^4 ?



- (1) 20736 (2) 28561
 (3) 38416 (4) 14641



15. The arithmetic mean of squares of first 50 natural numbers is :

- (1) 808.5 (2) 858.5
(3) 868.5 (4) 800.5

16. The details of marks scored in an exam by six students A, B, C, D, E and F are as follows. B and C scored more than A, A scored more than D and E, C scored less than B, F scored not more than D and E, while E scored not less than F. Who stands at the rank three ?

- (1) C (2) B
(3) A (4) D

17. If it was Sunday on January 1, 2023, what will be the day of the week on August 15, 2025 ?

- (1) Thursday (2) Friday
(3) Saturday (4) Wednesday

18. The sum of digits in the number $10^{27} - 26$ is :

- (1) 246 (2) 226
(3) 216 (4) 236

19. In the following question, three statements followed by four conclusions numbered I, II, III and IV are given. You should consider the given statements to be true even if they seem to be at variance from commonly known facts and then decide which conclusions logically follow from the given statements disregarding commonly known facts.

Statements :

- A. All papers are pencils.
B. Some pencils are markers.
C. All markers are butterflies.

Conclusions :

- I. Some markers are papers.
II. Some butterflies are pencils.
III. Some butterflies are papers.
IV. Some pencils are papers.

Which of the following options is correct ?

- (1) Only conclusion III follows
(2) Only conclusions II and IV follow
(3) Only conclusion II follows
(4) Only conclusion I follows

20. The median of first 100 natural numbers is :

- (1) 49.5 (2) 50.5
(3) 50 (4) 51.5

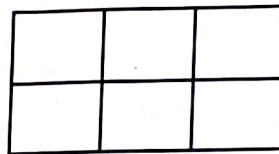
21. Study the following statements :

- A. Brinjal is tastier than potato.
B. Tomato is tastier than brinjal.
C. Potato is not tastier than cabbage.

Choose the correct conclusion that can be drawn from the above statements :

- (1) Cabbage is as tasty as brinjal and tomato.
(2) Potato is the least tasty of the four vegetables.
(3) Potato is tastier than tomato.
(4) Cabbage is as tasty as brinjal.

22. The number of rectangles in the following figure is :



- (1) 19 (2) 16
(3) 17 (4) 18

23. A survey conducted on 120 students with regard to their reading habits of three types of books, Fiction (F), History (H) and Novels (N) revealed the following information :

54 students read N, $41\frac{2}{3}\%$ read F, 45% read H, $12\frac{1}{2}\%$ read both N and F, 14 read N and H, 20 read H and F and $4\frac{1}{6}\%$ read all the three types of books.

Using this information answer the following question.

How many students read exactly any two of the three types of books ?

- (1) 35 (2) 36
(3) 37 (4) 34

24. Which sequence of letters is to be placed at the blanks one after the other to complete the following letter series ?

c _ bba _ cab _ ac _ ab _ ac

- (1) acbcb (2) babcc
(3) bcacb (4) abcbc



25. The number of odd positive divisors of $6^3 7^4 8^5$ is :
- (1) 25 (2) 12
(3) 15 (4) 20
26. Two numbers are chosen at random from the set {1, 2, 3, 4, 5, 6, 7, 8, 9, 10}. Then the probability that the bigger of the two is at most 7 is :
- (1) $\frac{7}{15}$ (2) $\frac{2}{5}$
(3) $\frac{2}{3}$ (4) $\frac{3}{5}$
27. Let S be the set of all natural numbers from 1 to 20, both inclusive. Then the number of ordered triads (x, y, z) with the elements from S in which at least two of x, y and z are equal is :
- (1) 1160 (2) 1150
(3) 1140 (4) 1170
28. In a certain code language BOTTLE is coded as 1198 and GLASS is coded as 916. How is CHAIR coded in the same language ?
- (1) 486
(2) 584
(3) 479
(4) 524
29. If $125 \# 25 = 5$, $10 @ 3 = 30$, $5 \& 3 = 8$ and $10 \$ 6 = 4$, then find the value of $50 \$ 25 @ 1 \& (20 \# 10)$.
- (1) 18
(2) 27
(3) 22
(4) 20
30. In a joint family of seven persons, P, Q, R, S, T, U and V, there are two married couples. V is a housewife and her husband is a lawyer. R is the wife of Q, P is an engineer and is the grand-daughter of V. S is the father-in-law of R, a doctor, and father of T, a professor. U is P's brother and Q's son. How is U related to R ?
- (1) Brother
(2) Daughter
(3) Data inadequate
(4) Son
31. In the following, a given question is accompanied by two statements. Choose the correct option to answer the question.
- Is $5x + 25$ divisible by 50 ?
- I. x is divisible by 5.
II. x is divisible by 10.
- (1) The question can be answered by using both the statements together, but cannot be answered using either statement alone.
(2) The question can be answered by using either statement alone.
(3) The question cannot be answered even by using both the statements together.
(4) The question can be answered by one of the statements alone and not by the other.



32. All the letters of the word LAYOUT are jumbled (without repetition) and form new words in alphabetical order. What will be the rank of LAYOUT among the newly formed words ?
- (1) 130 (2) 120
(3) 140 (4) 136
33. The calendar of the year 2010 will be the same for which of the following years ?
- (1) 2021 (2) 2022
(3) 2023 (4) 2019
34. A watch was set right at 8 AM and it gains 6 seconds for every 4 minutes. On the same day, what will be the correct time when the watch shows 4 PM ?
- (1) 3:45 PM (2) 3:48 PM
(3) 3:50 PM (4) 3:55 PM
35. In a certain code language BXKRTUSVADPN is coded as XPSBUVRDKNTA. In the same language how is QLAHKRPXLBWJ coded ?
- (1) LWPQXRHBAKJL
(2) LWPQRXHBAJKL
(3) LWQPXRHBAKJL
(4) LWQPRXHABJKL
36. In a certain code language "BLUESTOCKING" is coded as "TNLIUGBEOSCK". In the same language "CABINETWORKS" is coded as :
- (1) EKARBSCITNWO
(2) EKABRSCITNWO
(3) EKABRCSITNOW
(4) EKARSBCITNOW
37. In a class, 30% drink tea and 75% drink coffee. Twenty students drink both and 15 students do not drink any of the two. What is the total strength of the class ?
- (1) 120 (2) 80
(3) 90 (4) 100
38. Let $U = \{1, 2, 3, \dots, 50\}$
 $A = \{x \in U \mid x \text{ leaves remainder } 1 \text{ when divided by } 4\}$
 $B = \{x \in U \mid x \text{ leaves remainder } 3 \text{ when divided by } 4\}$
and $C = \{x \in U \mid x \text{ leaves remainder } 1 \text{ when divided by } 6\}$
- The number of primes in $B \cup C$ is :
- (1) 10 (2) 11
(3) 12 (4) 9
39. Let $U = \{x \mid 1 \leq x \leq 100, x \text{ is a natural number}\}$
and $A = \{x \in U \mid 3 \text{ divides } x\}$
 $B = \{x \in U \mid 7 \text{ divides } x\}$
 $C = \{x \in U \mid 15 \text{ divides } x\}$
- Which of the following is the null set ?
- (1) $A \cap B$ (2) $A - C$
(3) $C \cap A$ (4) $A \cap B \cap C$
40. Three persons A, B and C can do a piece of work in 18, 36 and 48 days respectively. A, B and C together start working. After 3 days, A leaves the job and B and C continue the job, but due to some reason B also leaves the job after 3 days, whereas C continues till the end of the job.
- I. A and B together can finish the job in 12 days.
II. After the departure of A and B, C alone finishes the job in 26 more days.
- Which of the following options is correct ?
- (1) Both I and II are false.
(2) I is true and II is false.
(3) I is false and II is true.
(4) Both I and II are true.



41. Two persons P and Q enter into a partnership business with investments in the ratio 1 : 2. P continues till the end of the year while Q withdraws his investment after 6 months.

Consider the statements :

- A. P's share of profit is half the share of Q.
 B. If the year end profit is ₹ 6,00,000, then the share of P is ₹ 2,00,000.

Choose the correct option from the following :

- (1) Both A and B are true
 (2) A is false and B is true
 (3) A is true and B is false
 (4) Both A and B are false

42. PQR is a right-angled triangle with $\angle R = 90^\circ$, PR = 15 cm. Foot of the perpendicular drawn from R onto PQ is H and HQ = 16 cm. Then what is the area (in cm^2) of ΔPQR ?

- (1) 150 (2) 160
 (3) 170 (4) 140

43. Let x, y and z be real numbers such that $x^2 + y^2 + z^2 = xy + yz + zx$.

Consider the statements :

- A. $x \neq y$ and $y \neq z$
 B. $x = y = z$

Choose the correct option from the following :

- (1) A is false and B is true
 (2) A is true and B is false
 (3) Both A and B are false
 (4) Both A and B are true

44. Consider the expression $x^3 + y^3 + z^3 - 3xyz$:
 A. $x + y + z$ is a factor of the expression.
 B. $x - y + z$ is a factor of the expression.
 Choose the correct option from the following :

- (1) A is false and B is true.
 (2) Both A and B are false.
 (3) Both A and B are true.
 (4) A is true and B is false.

45. If $S_n = \frac{n+1}{S_{n-1}}$, $n > 1$ with $S_1 = 10$, then $S_2 S_3 S_4 S_5 S_6 =$

- (1) $\frac{7}{2}$ (2) 16
 (3) $\frac{21}{2}$ (4) 10

46. Let x, y, z be some natural numbers such that $x\%$ of $(y + z) = y\%$ of $(z + x) = z\%$ of $(x + y)$, where $xyz \neq 0$.

Consider the statements :

- A. $x = y = z$
 B. $x^2 + y^2 + z^2 = xy + yz + zx$
 C. $x = 2y = 3z$
 D. $x + y + z = 10$

Choose the correct option from the following :

- (1) Only A and B are true.
 (2) Only B and C are true.
 (3) Only C and D are true.
 (4) Only A is true.

47. Consider the numbers :

$$p = 4 - \sqrt{14}, q = 3\sqrt{2} - 4, r = \sqrt{13} - \sqrt{11}, s = 2\sqrt{2} - \sqrt{6} \text{ and } t = \sqrt{10} - 2\sqrt{2}.$$

- A. $p < r < t$
 B. $r < t < s$
 C. $p < q < r < t$
 D. $q < p < s$

Choose the correct option from the following :

- (1) Only B, C and D are true.
 (2) Only A, B and D are true.
 (3) Only A, B and C are true.
 (4) Only A, C and D are true.



48. The sum of squares of five consecutive whole numbers when divided by 4 leaves the remainder :
- (1) either 0 or 1 (2) either 1 or 3
(3) either 0 or 3 (4) either 2 or 3
49. $19 \times 21 + 27 - 36 \div 3 \times 6 + (4 - 2) =$
- (1) 356 (2) 330
(3) 365 (4) 426
50. The distance between two stations A and B is 270 km. Two persons P and Q start at 9 AM by driving cars from stations A and B respectively to reach their destinations B and A with their own speeds. If they both meet at station C at 11:30 AM, which is at a distance of 120 km from station A, then the speed with which Q drove the car (in kmph) is :
- (1) 80 (2) 60
(3) 90 (4) 40
51. The difference between the compound interest and the simple interest on a sum of ₹ 3,12,500 which is kept at the annual rate of interest $r\%$ for a period of 3 years is ₹ 6,160. Then $r =$
- (1) 4 (2) 8
(3) 12 (4) 6
52. A conical tent has been erected by spending ₹ 58,212 for the canvas required. The canvas costs ₹ 630 per sq.m. If the radius of the cone is 4.2 m, then the height of the cone (in meters) is _____.
- (1) 4.9 (2) 5.6
(3) 6.3 (4) 4.2
53. If 'n' is the number of coprime numbers of 2027 and the sum of all the odd natural numbers less than 'n' is x^2 , then $x =$
- (1) 1013 (2) 2026
(3) 1012 (4) 2025
54. What is the value of $101101_2 + 110011_2$?
- (1) 96 (2) 98
(3) 99 (4) 92
55. The speed of a car 'Y' is r times the speed of the car 'X'. If the car 'X' covers a distance 'D' km in 'H' hours, then the time (in hours) in which car 'Y' covers the distance of 'rD' km is :
- (1) r/H (2) H
(3) H/r (4) r
56. A vegetable vendor sells vegetables at 7% less than the cost price and gets a profit of 20% by manipulating the weights he uses. How many grams is he weighing less per kg?
- (1) 850 (2) 200
(3) 225 (4) 800
57. A sum of ₹ 2,00,000 is lent for interest at the rate of 3% for the first year and 4% for the second year on the amount accumulated at the end of the first year. If the amount accumulated at the end of the second year is further lent for one year at the rate of $p\%$ and the amount received at the end of the third year is ₹ 2,35,664, then $p =$
- (1) 7 (2) 10
(3) 12 (4) 5
58. Which of the following is **not** true?
- (1) In an arithmetic progression, if $(2p)^{\text{th}}$ term is $2q$, and $(2q)^{\text{th}}$ term is $2p$, then $(q + p)^{\text{th}}$ term is $q + p$.
- (2) If x is a prime number, then it is an odd integer.
- (3) In a progression if the sum of the first 'n' terms is a quadratic polynomial in 'n', then it is an arithmetic progression.
- (4) If a line segment of length l is made into two parts of lengths m and n ($m > n$) such that $\frac{l}{m} = \frac{m}{n}$, then $\frac{m}{n} = \frac{1 + \sqrt{5}}{2}$.



59. A hollow iron pipe is 21 cm long and its external diameter is 8 cm. If the thickness of the pipe is 1 cm and iron weighs 8 g/cm^3 , then the weight of the pipe is (in kilograms) :
- (1) 3.696 (2) 36
(3) 36.9 (4) 3.5
60. A rectangle 'R' has dimensions 'l', 'b'. A new rectangle 'R₁' is formed by reducing 'l' by 'x%' and by increasing 'b' by 'x%'. Then the ratio of areas of 'R' and 'R₁' is :
- (1) $10000 : 1000 - x^2$
(2) $1000 : 100 - x^2$
(3) $1000 : 1000 - x^2$
(4) $10000 : 10000 - x^2$
61. If 'a', 'b' and 'c' are three primes such that $a + b = c$, $b > a > 1$ then, what is the value of 'a' ?
- (1) 3 (2) 5
(3) 7 (4) 2
62. The sum of four-digit numbers that end in 23 is :
- (1) 491460 (2) 492570
(3) 492620 (4) 491880
63. The number of divisors of $(70)^4$ excluding 1 and $(70)^4$ is :
- (1) 125 (2) 123
(3) 120 (4) 121
64. $\frac{3(\sqrt{3} + \sqrt{15})}{5\sqrt{3} + \sqrt{5}} =$
- (1) $\frac{5\sqrt{6}}{3}$ (2) $\frac{3}{5\sqrt{6}}$
(3) $\frac{3\sqrt{6}}{5}$ (4) $\frac{5}{3\sqrt{6}}$
65. If $x + y + z = 21$, $y = 2x$ and $z = 1 + y$, then what is the value of xyz ?
- (1) 288 (2) 243
(3) 343 (4) 315
66. How many times does the digit 8 occur in the natural number series starting from 1 to 999 ?
- (1) 290 (2) 300
(3) 310 (4) 280
67. Let O_n and E_n respectively denote the sums of first 'n' odd positive integers and first 'n' even positive integers, then $E_{100} - O_{100} =$
- (1) 150 (2) 100
(3) 250 (4) 200
68. The average of 'a', 'b', 'c' is 40 and the average of 'b', 'c', 'd' is 42. If 'd' = 44, then $d^2 - a^2 =$
- (1) 392 (2) 492
(3) 1444 (4) 1936
69. The traffic lights at three different road crossings change after every 48 seconds, 72 seconds and 108 seconds respectively. If they all change simultaneously at 8:20:00 hours, then at what time will they again change simultaneously ?
- (1) 8:27:12 hours
(2) 10:45:55 hours
(3) 8:15:25 hours
(4) 9:37:22 hours
70. In a two-digit number XY, the digit Y is in one's place and the digit X is in ten's place. The sum of XY and YX is 132 and sum of X^2 and Y^2 is 80. What is the value of $X^3 + Y^3$?
- (1) 576 (2) 468
(3) 432 (4) 756



71. Rearrange the sentences in a logical order to form a meaningful paragraph :

- A. The Prime Minister of India had launched the Swachh Bharat Mission on 2nd October, 2014.
- B. Under this programme, more than 100 million toilets were constructed in rural India.
- C. The objective of the mission was to achieve universal sanitation coverage.
- D. As a result, all villages, cities and states declared themselves 'open-defecation free'

Choose the correct order :

- (1) A, C, B, D
- (2) B, D, A, C
- (3) B, C, A, D
- (4) A, D, B, C

72. Rearrange the sentences in a logical order to form a meaningful paragraph :

- A. Nalanda, the oldest university in the world, followed this Gurukula system.
- B. The 'Gurukula' was an ancient system of education in India.
- C. Students from across the world used to flock to the university for studies.
- D. In accordance to the system, the shishyas used to live with the Guru in the same house.

Choose the correct order :

- (1) A, B, D, C
- (2) B, D, A, C
- (3) B, C, A, D
- (4) A, D, B, C

73. Rearrange the sentences in a logical order to form a meaningful paragraph :

- A. Pradeep does not like working in Bombay.
- B. So, he finally decided to relocate to Hyderabad.
- C. Without losing time, he gave an application to the manager for a transfer.
- D. It is because he has very few friends there.

Choose the correct order :

- (1) A, C, B, D
- (2) A, D, B, C
- (3) C, D, B, A
- (4) A, B, D, C

74. Rearrange the sentences in a logical order to form a meaningful paragraph :

- A. My friend asked me, "How is the new hotel ? Is it good ?"
- B. I said, "I have no idea."
- C. A new hotel was opened yesterday.
- D. The reason was I did not visit the hotel.

Choose the correct order :

- (1) C, D, A, B
- (2) A, D, C, B
- (3) C, A, B, D
- (4) A, D, B, C

75. Rearrange the sentences in a logical order to form a meaningful paragraph :

- A. Ashoka the Great was a great emperor of the Mauryan Empire.
- B. The devastation caused by the war made him renounce violence.
- C. A few years later, he got initiated into Buddhism.
- D. He fought a brutal war in Kalinga victoriously.

Choose the correct order :

- (1) A, B, D, C
- (2) A, D, C, B
- (3) D, B, A, C
- (4) A, D, B, C

76. Rearrange the sentences in a logical order to form a meaningful paragraph :

- A. I came to know that his train had arrived much before the scheduled time.
- B. So I was quite disappointed.
- C. Yesterday I went to the station to meet my friend.
- D. But when I reached the station, my friend had already left.

Choose the correct order :

- (1) C, D, A, B
- (2) A, D, C, B
- (3) C, B, D, A
- (4) A, D, B, C



77. Rearrange the sentences in a logical order to form a meaningful paragraph :

- A. I have some trouble reading.
- B. I wanted to do my homework.
- C. But it was getting dark.
- D. So I decided to switch on the lights.

Choose the correct order :

- (1) B, C, A, D
- (2) A, C, B, D
- (3) B, D, C, A
- (4) A, B, C, D

78. Rearrange the sentences in a logical order to form a meaningful paragraph :

- A. Suddenly, my mother fell seriously ill.
- B. And I had to cancel the trip.
- C. The weather is very hot in Hyderabad in summer.
- D. So I planned a trip to Ooty.

Choose the correct order :

- (1) C, B, A, D
- (2) A, D, C, B
- (3) C, D, A, B
- (4) A, B, C, D

79. Rearrange the sentences in a logical order to form a meaningful paragraph :

- A. But teachers may also find it useful.
- B. It is not meant for elementary teachers.
- C. This is a self-study grammar book.
- D. They will find it beyond their standard.

Choose the correct order :

- (1) C, A, B, D
- (2) C, B, A, D
- (3) A, B, C, D
- (4) B, C, D, A

80. Rearrange the sentences in a logical order to form a meaningful paragraph :

- A. She wants to go out this evening.
- B. She tried but could not get a babysitter.
- C. But the problem is she has two young children.
- D. So she has postponed her programme.

Choose the correct order :

- (1) C, A, B, D
- (2) A, C, B, D
- (3) D, B, C, A
- (4) B, C, D, A

Questions No. 81 to 85 :

Read the following passage carefully and answer the questions given below :

In 1912, the British explorer Captain Robert Falcon Scott and his men were caught in a fierce blizzard while returning to their base camp. After reaching the South Pole all of them perished. Their tent, buried under the snow, was discovered the following year by Sir Ernest Shackleton. Robert Scott was found holding in the dead hand an unfinished letter addressed to his author friend, James Barrie. After discovering the blizzard and their impending doom, Scott wrote saying that he and his colleagues were spending their time singing songs and making pleasant conversation. Beneath those lines he had written in bold letters one word — COURAGE. When he returned to England, Shackleton handed over the letter to Sir James Barrie who read it and kept it in a box.

A few years later, Sir James developed some defect in his right hand because of which he could not hold a pen with that hand. The author despaired of ever being able to write again. One day in a disappointed mood, he took out Scott's letter and read it again. It lifted his spirits, and set him thinking that if Scott and his men could remain cheerful in the face of certain death, could he not learn to face adversity bravely ? He picked up his pen and began practising writing with his left hand. In a few weeks he could write perfectly well with it.

81. Which of the following statements is correct ?

- (1) Robert Scott wrote a letter when he was buried under the snow.
- (2) Sir Ernest Shackleton found the tent buried under the snow.
- (3) Robert Scott wrote a letter to Shackleton.
- (4) Sir James Barrie was originally a left-hander.



82. Consider the following statements :
- A. Ernest Shackleton found Robert Scott's letter in England.
- B. Sir James Barrie learnt to face adversity boldly by taking the example of Robert Scott.

Which of the above statements is/are correct ?

- (1) A only
 (2) Both A and B
 (3) Neither A nor B
 (4) B only

83. Match the following :

<i>Column I</i>	<i>Column II</i>
A. doom	I. snowstorm
B. adversity	II. disappear
C. blizzard	III. difficulty
D. perish	IV. destruction
	V. fortune

Choose the correct answer :

- (1) A-II; B-III; C-I; D-V
 (2) A-IV; B-III; C-I; D-II
 (3) A-IV; B-I; C-II; D-III
 (4) A-I; B-II; C-III; D-IV

84. Consider the following statements :

- A. Sir James had some defect in his left hand.
 B. Beneath the lines of his letter, Scott wrote one word — COURAGE.
 C. Scott and his men were caught in a severe snowstorm.
 D. Adversity makes one happy and content.

Which of the above statements is/are correct ?

- (1) Only C
 (2) B and C
 (3) A, C and D
 (4) A and B

85. Which of the following statements is correct ?

- (1) Robert Falcon Scott was cheerful though he was sure of his death.
 (2) Sir James Barrie did not practice writing.
 (3) Sir Ernest Shackleton kept the letter in a box.
 (4) Sir James Barrie and Robert Scott are strangers.

Questions No. 86 to 90 :

Read the following passage carefully and answer the questions given below :

There is a computer in the car you travel by; there could be a personal computer at your workplace, or on your study table at home. The weather report you get daily also involves the computer but all of them do not fall into the same category. They are different in terms of hardware, software, purpose, and everything else. Initially computers were classified on the basis of their size, speed and cost, but now there are many more attributes attached to them. Each and every computer must fall into one of the four categories respectively, supercomputer, mainframe computer, minicomputer and microcomputer. A computer system consists of three primary components namely memory, central processing unit and input / output unit. The second one, the central processing unit is the brain of the computer and it is also called the CPU and it consists of a control unit, which is CU and arithmetic and logical unit, which is an ALU. The memory provides a storage medium for the data and instructions to be executed. The capacity is generally measured in terms of kilobytes or megabytes.

86. Match the following :

<i>Abbreviation</i>	<i>Full Form</i>
A. CU	I. Compact Disc
B. CD	II. Control Unit
C. ALU	III. Arithmetic and Logical Unit
D. CPU	IV. Arithmetic Linguistic Unit
	V. Central Processing Unit

Choose the correct answer :

- (1) A-I; B-II; C-IV; D-III
 (2) A-II; B-I; C-III; D-V
 (3) A-II; B-I; C-IV; D-V
 (4) A-I; B-II; C-III; D-IV



87. Consider the following statements :
- A. Computers are different in terms of their hardware and software.
- B. The storage of computers is generally measured in terms of kilobytes or megabytes.

Which of the above statements is/are correct ?

- (1) B only
 (2) Both A and B
 (3) Neither A nor B
 (4) A only

88. Consider the following pairs :

<i>Category</i>	<i>Computer</i>
A. First category	: Supercomputer
B. Second category	: Microcomputer
C. Third category	: Minicomputer
D. Fourth category	: Mainframe computer

Identify the correctly matched pairs :

- (1) A and D only
 (2) A, C and D only
 (3) A, B, C and D
 (4) A and C only

89. What is a PC ?

- (1) Personal computer
 (2) Penultimate computer
 (3) Primary computer
 (4) Processing computer

90. Consider the following statements :

- A. Initially computers were classified on the basis of their size, speed and cost.
- B. Now computers are classified only on the basis of their speed.

Which of the above statements is/are correct ?

- (1) B only
 (2) Both A and B
 (3) Neither A nor B
 (4) A only

Questions No. 91 to 95 :

Read the following passage carefully and answer the questions given below :

It seems to me a very strange thing that large numbers of women should have met together tonight to consider whether the vote is of importance, while all day long, across the water, in the Peckham bye-election, men whether they realise it or not, have been exercising it, and in exercising it settling for women as well as for themselves great questions of public importance.

What, then, is this vote that we are hearing so much about just now, so much more than people have heard in discussion at least, for a great many years ? I think we may give the vote a three-fold description. We may describe the vote as, first of all, a symbol; secondly, a safeguard, and thirdly, an instrument. It is a symbol of freedom, a symbol of citizenship, a symbol of liberty. It is a safeguard of all those liberties which it symbolises. And in these later days it has come to be regarded more than anything else as an instrument, something with which you can get a great many more things than our forefathers who fought for the vote ever realised as possible to get with it. It seems to me that such a thing is worth fighting for, and women today are fighting very strenuously in order to get it.

91. Why did a large number of women gather together ?

- (1) To discuss what their forefathers did
 (2) To fight against men.
 (3) To fight for women's right to vote
 (4) To vote in the Peckham bye-election

92. Men's attitude in settling the important issues is

- (1) unilateral
 (2) considerate
 (3) cruel
 (4) bilateral



93. Consider the following statements with reference to England of those times in the context of the passage :

- A. Women had the right to vote.
- B. Only men had the right to vote.
- C. Both men and women had the right to vote.
- D. Right to vote was a symbol of freedom and citizenship.

Which of the above statements are correct ?

- (1) B, C and D only
- (2) B and D only
- (3) A, C and D only
- (4) A and C only

94. The meaning of the word 'Strenuously' in the passage is

- (1) Forcefully
- (2) Easily
- (3) Weakly
- (4) Lightly

95. Consider the following statements :

- A. Right to vote safeguards all our liberties.
- B. Our forefathers fought for the rights of men only.

Which of the above statements is/are correct ?

- (1) A only
- (2) B only
- (3) Neither A nor B
- (4) Both A and B

96. Select the option with the correct order for forming a correct and meaningful sentence :

- A. is due to
- B. the rotation of the Earth
- C. the formation of day and night
- D. on its axis

Choose the correct order :

- (1) C, D, B, A
- (2) B, D, C, A
- (3) D, C, B, A
- (4) C, A, B, D

97. Select the option with the correct order for forming a correct and meaningful sentence :

- A. assigned to me
- B. complete the work
- C. I would have gone earlier
- D. but I could not

Choose the correct order :

- (1) D, B, C, A
- (2) B, D, A, C
- (3) C, D, B, A
- (4) C, A, B, D

98. Select the option with the correct order for forming a correct and meaningful sentence :

- A. to the post unless
- B. two or more members
- C. he cannot be elected
- D. propose his name

Choose the correct order :

- (1) B, A, D, C
- (2) C, A, B, D
- (3) D, B, C, A
- (4) D, C, B, A

99. Select the option with the correct order for forming a correct and meaningful sentence :

- A. he plays
- B. his friends
- C. on weekends
- D. soccer with

Choose the correct order :

- (1) A, D, B, C
- (2) B, C, D, A
- (3) D, B, C, A
- (4) C, D, B, A

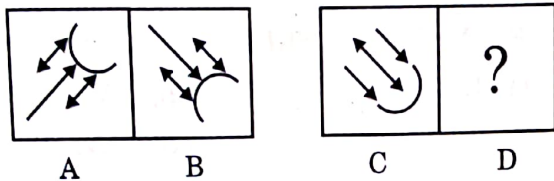


100. Select the option with the correct order for forming a correct and meaningful sentence :
- from my friend that
 - I have received
 - an email
 - he is going abroad
- Choose the correct order :
- B, A, D, C
 - B, C, A, D
 - A, C, D, B
 - D, A, C, B
101. Select the option with the correct order for forming a correct and meaningful sentence :
- refrigerators and televisions
 - appliances these days
 - household electrical
 - are the most used
- Choose the correct order :
- C, A, D, B
 - B, A, C, D
 - D, C, B, A
 - A, D, C, B
102. Select the option with the correct order for forming a correct and meaningful sentence :
- of trousers this time
 - tomorrow is my birthday
 - buy a beautiful pair
 - and I am going to
- Choose the correct order :
- A, C, B, D
 - B, A, D, C
 - C, D, B, A
 - B, D, C, A
103. Select the option with the correct order for forming a correct and meaningful sentence :
- this year I would
 - my teacher advised me that
 - surely succeed
 - if I worked hard
- Choose the correct order :
- B, D, A, C
 - B, C, D, A
 - A, C, B, D
 - A, B, D, C
104. Select the option with the correct order for forming a correct and meaningful sentence :
- going on for the last month
 - the cultural programmes will commence
 - for which rehearsals have been
 - on the fifteenth of this month
- Choose the correct order :
- C, A, D, B
 - C, B, D, A
 - B, D, C, A
 - B, D, A, C
105. Select the option with the correct order for forming a correct and meaningful sentence :
- for more than five years
 - score a century
 - although he has been playing cricket
 - he has not been able to
- Choose the correct order :
- C, A, D, B
 - B, C, A, D
 - A, C, D, B
 - D, B, A, C
- Read the passage given below and the five questions (106 - 110) based on it. Select the correct option to fill in the blanks.*
- Childhood is a time when there are few responsibilities to make life difficult. If a child has 1 parents, he is fed, 2 after and loved, whatever he may do. It is improbable 3 he will ever again in his life 4 given so much without having to do anything 5 return.
106. Select the correct option to fill in the blank 1.
- | | |
|----------|-------------|
| (1) good | (2) wealthy |
| (3) old | (4) fair |
107. Select the correct option to fill in the blank 2.
- | | |
|------------|------------|
| (1) run | (2) talked |
| (3) looked | (4) chased |
108. Select the correct option to fill in the blank 3.
- | | |
|---------|------------|
| (1) if | (2) though |
| (3) but | (4) that |
109. Select the correct option to fill in the blank 4.
- | | |
|----------|---------|
| (1) were | (2) be |
| (3) are | (4) was |
110. Select the correct option to fill in the blank 5.
- | | |
|----------|---------|
| (1) with | (2) by |
| (3) in | (4) for |

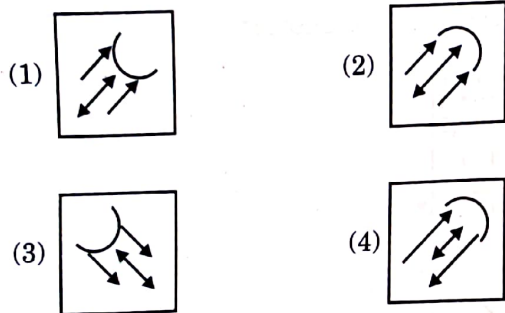


111. In the following problem, two sets of figures, namely 'Problem Figures' and 'Answer Figures' are provided. The 'Problem Figures' are marked as A, B, C and D. Figures A and B in the 'Problem Figures' are related in a particular manner. Select an Answer Figure with a similar relationship between figures C and D.

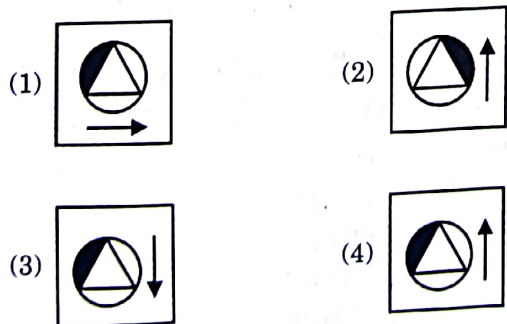
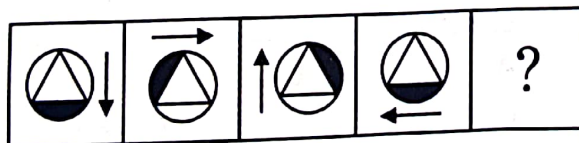
Problem Figures :



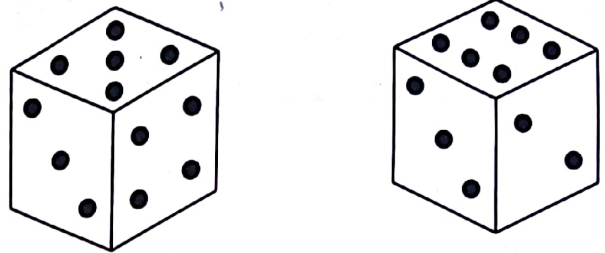
Answer Figures :



112. A problem figure, which follows a particular sequence, is given below. You are required to select one of the suitable alternatives, which will continue the same pattern.



113. Two positions of a single die are shown below. If single '•' is at the bottom, then the number of dots that appear on the top is ?

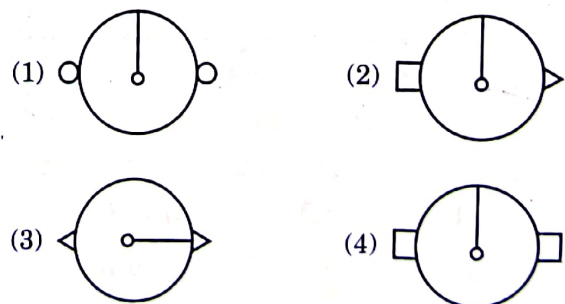
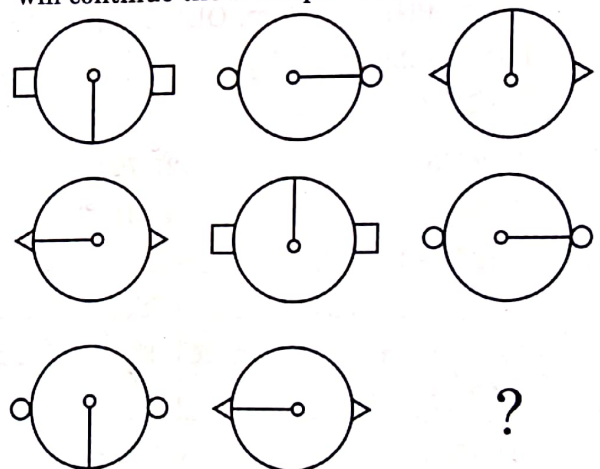


- (1) 3
(2) 6
(3) 5
(4) 4

114. Find the sum of all three-digit numbers that can be formed by the digits 1, 2, 3 and 8 without repetition.

- (1) 9324
(2) 9342
(3) 9448
(4) 9426

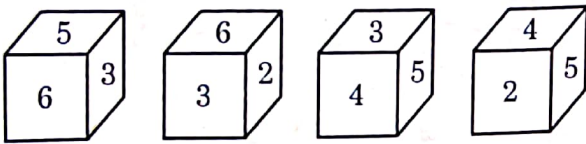
115. A problem figure, which follows a particular sequence, is given below. You are required to select one of the suitable alternatives, which will continue the same pattern.



116. The probability of Kalam and Kaleem solving a specific problem independently is 0.40 and 0.75 respectively. If both are trying to solve the problem independently, find the probability that exactly one of them solves it.

- (1) $\frac{1}{10}$ (2) $\frac{11}{20}$
 (3) $\frac{9}{20}$ (4) $\frac{3}{10}$

117. Four positions of a cube are shown below, whose faces are numbered 1 through 6. Which number will be on the face opposite to the face with number 3?



- (1) 2 (2) 4
 (3) 5 (4) 1

118. In a certain code language, NDLA is coded as 6830, ACP is coded as 465, PNE is coded as 374, OLT is coded as 201 and TIP is coded as 429. What will be the code for LCET in the same language?

- (1) 2705 (2) 7532
 (3) 5307 (4) 3174

119. Different words are formed by jumbling the letters of the word 'CHEMIST' without repetition of the letters. Out of such newly formed words, how many words will have all the vowels together?

- (1) 1564 (2) 4040
 (3) 1440 (4) 5040

120. All the letters of the word 'STUDY' are jumbled and possible five-letter words are formed without repetition of letters. From those newly formed words, a word is drawn at random. What is the probability that the word drawn starts with the letter U?

- (1) 0.18 (2) 0.15
 (3) 0.20 (4) 0.24

121. Find the odd one out of the following four pairs:

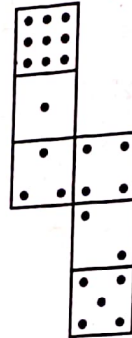
- 21 : 9282, 18 : 5850, 26 : 17602, 31 : 29821
 (1) 18 : 5850 (2) 26 : 17602
 (3) 31 : 29821 (4) 21 : 9282

122. Two pairs are given below; there is some relationship between the two terms of the first pair. Using the same relationship, find a suitable alternative in place of '?'.

FNSY : RLCU :: SKLP : ?

- (1) IEML (2) EIVL
 (3) ELVI (4) MLVI

123. If the figure given below is folded to form a cube, how many dots lie opposite to the face having four dots?



- (1) 6 (2) 2
 (3) 5 (4) 1

124. Mahesh is the son of Anand's father's sister. Phani is the son of Ramya who is the mother of Vinay and grandmother of Anand. Praveen is the father of Neha and grandfather of Mahesh. Ramya is the wife of Praveen. How is the wife of Vinay related to Neha?

- (1) Niece (2) Sister
 (3) Daughter (4) Sister-in-law

125. In a certain code language, NIZAMABAD is coded as UWUCVQYEO. How will KOTHAGUEDEM be coded in the same language?

- (1) RCOJJWRHPE
 (2) RCOJJWHRPE
 (3) RCJOWJHRPE
 (4) RCJOJWRHPE



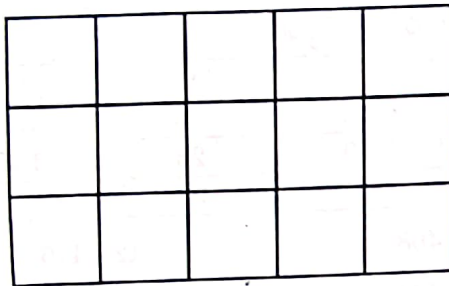
126. A group consists of 6 girls and 9 boys. How many ways can a team of 6 members be selected if the team has at least 4 girls ?
 (1) 590 (2) 585
 (3) 580 (4) 595
127. Find the number of different 9-letter words that can be made from all the letters of EARLINESS, so that all vowels do not occur together.
 (1) 90720 (2) 82080
 (3) 84240 (4) 86400
128. Seven students A, B, C, D, E, F and G have appeared for two examinations in Foundation and Core courses. Based on their performance in the examinations, they were given ranks. D ranked first in the Foundation course and was last in the Core course. G had the same ranking in both courses and was just above D in Core course. B is in the middle in Core and just below D in the Foundation course. C is in the middle in the Foundation and just above G in the Core course. A is in between B and C in the Foundation and just above B in the Core course. E is just below G in the Foundation and F ranked first in the Core course. Whose average rank for both the courses together is equal to 4 ?
 (1) D (2) E
 (3) F (4) C
129. Eight friends, Lavanya, Deepak, Pavan, Munish, Chaitanya, Prasanna, Kalyan and Suman sit around a circular table facing the centre. Deepak is between Chaitanya and Prasanna. Pavan is between Kalyan and Lavanya. Chaitanya and Munish are opposite each other. Kalyan is between Pavan and Munish. Suman and Lavanya are opposite each other. Who is sitting immediately to the right of Lavanya ?
 (1) Pavan (2) Kalyan
 (3) Chaitanya (4) Deepak
130. A bag contains 5 blue, 7 green and 8 white balls. If two balls are drawn randomly, what is the probability of getting one blue ball and one white ball ?
 (1) $\frac{4}{19}$ (2) $\frac{13}{20}$
 (3) $\frac{13}{19}$ (4) $\frac{1}{10}$
131. In the following question, four statements followed by four conclusions numbered I, II, III and IV are given. You should consider the given statements to be true even if they seem to be at variance from commonly known facts and then decide which conclusions logically follow from the given statements disregarding commonly known facts.
Statements :
 A. All animals are birds.
 B. Some birds are cats.
 C. All cats are dogs.
 D. Some dogs are elephants.
Conclusions :
 I. Some birds are animals.
 II. Some animals are cats.
 III. Some birds are dogs.
 IV. Some animals are elephants.
 Which of the following options is correct ?
 (1) Only II and IV follow
 (2) Only I and III follow
 (3) Only II, III and IV follow
 (4) Only I and IV follow
132. All the letters of the word NORMALITY are jumbled and possible five-letter words are formed without repetition of letters. From those newly formed words, a word is drawn at random. What is the probability that the word drawn starts with the letter M and ends with the letter R ?
 (1) $\frac{2!}{9!}$ (2) $\frac{7}{9!}$
 (3) $\frac{1}{72}$ (4) $\frac{7}{72}$



133. The boys P, Q, R, S, T, U and V stand in a row facing north. V is in between P and T. U and P have one boy between them. R and T have two boys between them. S is to the immediate right of U. R and Q have three boys between them. The boy on the immediate right side of the boy standing exactly in the middle position is _____.

- (1) R (2) T
(3) V (4) P

134. The total number of quadrilaterals that appear in the following figure is :



- (1) 120 (2) 90
(3) 60 (4) 360

135. A man started walking in the north direction. He walked 10 meters and took a left turn, walked 5 meters, then took a right turn, walked for 5 meters and he again took a right turn and walked 5 meters. Then he took a left turn and walked for 5 meters and stopped. What is the shortest distance between the final position of the man and his initial starting position ?

- (1) 25 meters (2) 15 meters
(3) 10 meters (4) 20 meters

136. Consider the following string of letters, symbols and numbers :

A6\$R9&%N*D3#5TH@8N2+4M<QP7F

If the 7th elements from both the ends of the string are interchanged and the symbol * is replaced with the symbol ^, then in the new string thus formed, the 5th entry to the right of the 14th entry to the left of @ is _____.

- (1) % (2) D
(3) # (4) 4

137. The ratio of the present ages of two persons A and B is 5 : 8. If 10 years ago, the ratio of their ages was 1 : 2, what is the sum of their present ages ?

- (1) 65 (2) 64
(3) 66 (4) 60

138. If the sum of the two numbers is 70 and sum of their squares is 2500, then what is the product of those two numbers ?

- (1) 1000 (2) 1200
(3) 1300 (4) 900

139. The present age of Parvez is equal to Ramesh's age 10 years ago. If the sum of the squares of their present ages is 628, what is the difference in squares of their present ages ?

- (1) 350 (2) 340
(3) 360 (4) 330

140. What is the least number of identical cuboids, each of dimensions 3 cm × 4 cm × 6 cm that are required to form a cube ?

- (1) 192 (2) 144
(3) 169 (4) 196

141. Two friends, A and B are standing in an open ground at about 4 pm facing each other on a particular day. The shadow of A is exactly to his right and shadow of B is exactly to his left. Then choose the correct alternative.

- (1) A is facing North and East is on the left of B.
(2) A is facing South and East is on the right of B.
(3) East is on the right side of B and left side of A.
(4) West is on the left side of B and right side of A.



142. What will be the next term in the following series?
7, 11, 19, 36, 78, 169, 381, ?
(1) 762
(2) 763
(3) 764
(4) 761
143. A survey was conducted on 600 persons to study their educational background. 205 persons studied Engineering, 250 studied Management and 200 studied Psychology. Among them, 80 studied Engineering and Management, 75 studied Engineering and Psychology and 70 studied Psychology and Management. If 120 have studied none of these three, how many studied all the three programmes?
(1) 50
(2) 70
(3) 80
(4) 60
144. Three pairs of numbers are given below. There is some relationship between the two terms of each pair. Using the same relationship, find a suitable alternative in place of "?".
782 : 863, 948 : 1305, 896 : ?
(1) 1438
(2) 1457
(3) 1432
(4) 1418
145. In a particular code language, EXHIBITION is coded as GAMPVMVKBLQ. How will CONDITIONS be coded in the same language?
(1) ERKSTGZKHV
(2) ERSKTGZHKV
(3) ERKTSKGZHKV
(4) ERSKGTZHKV
146. Two pairs are given below; there is some relationship between the two terms of the first pair. Using the same relationship, find a suitable alternative in place of "?".
SLMKD : XVBEC :: BZMCX : ?
(1) GJCVW
(2) GJCWV
(3) GJBWW
(4) GJWBW
147. Find the number in place of "?" from the following alternatives:
- | | | |
|----|----|-----|
| 7 | 9 | 32 |
| 12 | 14 | 52 |
| 19 | 23 | 168 |
| 31 | 37 | ? |
- (1) 408
(2) 416
(3) 424
(4) 412
148. CAT is coded as 60 and DOG is coded as 420 in a particular code language. How will OWL be coded in the same language?
(1) 4040
(2) 4240
(3) 4060
(4) 4140
149. Two pairs are given below; there is some relationship between the two terms of the first pair. Using the same relationship, find a suitable alternative in place of "?".
PFRKC : WAAHN :: TZMCL : ?
(1) AUZVW
(2) AUVZW
(3) AVWUZ
(4) AVUWZ
150. Find the next term in the following series:
4, 11, 19, 36, 78, 169, ?
(1) 339
(2) 340
(3) 341
(4) 338

