

ACON Questions

1. Four boys K, L, M, and N sit in a row facing north and they are of different professions among engineer, doctor, professor, and actor. Four girls P, Q, R, and S sit in a row facing south and they are of different professions among lawyer, teacher, director, and collector. They sit in such a way that the distance between any 2 adjacent persons in a row is the same, such that 1 person in 1 row faces the other person in the other row but not necessarily in the same order. Collector sits opposite the person who sits 3rd to the right of N. The doctor and teacher sit opposite each other. The engineer sits opposite the person who sits 3rd to the left of R. Only 1 person sits in between K and L. R sits 2nd to the right of S, the director. P does not sit opposite to the engineer and K is neither a doctor nor an engineer. The lawyer does not sit opposite the actor.

Which of the following “person-profession” combination is correct?

ANS : M actor

Who is the doctor? \rightarrow N

2. Chandni's uncle read the novel and has gone to the market or he has bought the novel
- a. chandni's uncle read the novel and went to the market but did not buy it.
- b. Chandni's uncle did not read the novel or did not go to the market, implies he has bought the novel.
- c. Chandni's uncle did not buy the novel, implies she read the novel and went to the market.
- d. Both 2 and 3

ANS : C

3. Right circular cone of rod 4cm and height 10 cm

Ans: $100\pi/\sqrt{3}$

4. If $2x^2 - 7xy + 3y^2 = 0$ the x:y

Ans: 1:2 Or 3:1

5. Consider a quadratic eq x^2+bx+c if both b and c are modified so that c increases by 44% ,one root by 20%
Ans: b increases by 20%
6. What are the last digits in binary expansion of a number 7 8 6 2 6 9
Ans : 101
7. Sum of 3 consecutive odd number is 20 more than the first number.
What is the middle
Ans: 9
8. Six bell commence tolling together and toll at the intervals at 2,4,6,8,10 and 12 seconds. In 30 mins how many time will be the toll?
Ans : 16
9. Find the median of the first set of numbers 1,2,3,4,.....
Ans: 5.5
10. She ordered / certain make entry
Ans : 2 – certain girl to
11. Invasion of peloprmesse and the southern
12. / Cefrtain girls to /
13. Regular concerning services in schools
14. Light users of soan on avg use of of six soap 5 month
Ans : 9870
15. The no. of heavy users of cake mix is approx.
Ans : 76%
16. If the avg consumption of cola per day is twice that of beer
Ans : 109
17. The avg age of husband, wife, child, 3 years ago was 27 years then present age of husband is
Ans:40
18. Positive integer solution of $13x+8y=523$
Ans: 5
19. Two numbers a and b are such that 540 of A and 40% of B
Ans: 4:3
20. A group of 630 students, row not possible
Ans: 6 row not possible
21. PQRS is a square with x and y , mid points PQ, PS. What is the ratio of YSR and XYR
Ans: 2:3
22. The sum of all 4 digits numbers with rep.

Ans: 6660

23. In a mix of 6 liters, m:w – 2:1

Ans: 6 lit

24. What is the no. of the series 11,17,23,29,35

Ans: 65

25. Shruti purchased a recliner and dining

Ans: 2.9% / 10 rup

26. $106 \times 106 + 94 \times 94 = y$, what is y ?

Ans: 20,072

27. The diff of sqrt of two consecutive even integer is always divisible by

Ans: 4

28. 13,14,22,49,113,.....

Ans: 238

29. What percentage of number from 1 to 80 have 1 or 9 in unit digit

Ans: 20% / 16 digits

30. A vessel is full of mix of methanol and ethanol, 20% ethanol, 104+ of mix are drawn off

Ans: 40 litres

31. Eight people A B C D E F G H sitting on a round table, B opp to D who is next to E. Whho is opp of F

Ans : C

32. Seven person pool and torn are separated by persons, who is immediate left to vali?

Ans: unif

33. Jool complained to/ **whom** he suspected/

34. There were only two/ **commandoes** but even and every/

35. In a office building there are 15 offices on each floor, 45 floors

Ans: 675

36. Ms. Naina a drawing teacher, David, daniel, Dilip, Dravid. If David comes on Tuesday, Daniel is taught which of the subject

Ans: Canvas painting

37. QAR, RAS, SAT, TAU

Ans: UAV

38. Eight books on different subjects - biology, chemistry, physics, Maths, English, Hindi, zoology and economy are stacked together. Further, it is known that, 1) Economics is above Biology which is just above Hindi which is not at the bottom. 2) There are only two books between

Zoology and English books. 3) Numbers of books above chemistry is less than the Numbers of books below it. 4) Only Maths book is above zoology. 1. Which book is it the bottom of the stack?

Ans: Physics

39. Look at the series E24, G80, I13-4, _____, M23-12 What comes in the blank?

a. K18-8

b. L19-5

c. K19-7

d. L19_8

ANS: A

40. Six people D C E G B and H - sat around a round table, which has six equispaced chairs around it. There is a teacher, an accountant, a lawyer, an engineer, an actor and a doctor among them. Each of these six people carry out exactly one profession. H is opposite to D. The lawyer is to the right of the teacher and opposite to the actor. C is to the right of D. B is the actor. C is neither the lawyer nor the teacher. E is opposite to the actor. What is G?

Ans: Teacher

41. Each of the five friends A, B, C, D and E. Diff car Audi, Maserati.....

Ans. D owns a grey car

42. What comes next in the series.....

43. Look at this series 18, 27, 45, 72, 108, ... what should come next?

Ans: 153

44. A Circle is inscribed within a square and another circle is circumscribed around the same square. What is the ratio of inscribed circle to circumscribed circle?

Ans: $\frac{1}{2}$

45. Ground coffee from 2 plantations are mixed in the ratio of 2:3 and the mixture is sold at 24 USD per pack at a profit of 20%. If the coffee ground from plantation one costs 4 USD per pack more than one from plantation 2. How much does a pack of 2nd variety cost? (assume a pack = 100 grams in all cases)

Ans: 17.71

46. Four boys K, L, M, and N sit in a row facing north and they are of different professions among engineer, doctor, professor, and actor. Four girls P, Q, R, and S sit in a row facing south and they are of different

professions among lawyer, teacher, director, and collector. They sit in such a way that the distance between any 2 adjacent persons in a row is the same, such that 1 person in 1 row faces the other person in the other row but not necessarily in the same order. Collector sits opposite the person who sits 3rd to the right of N. The doctor and teacher sit opposite each other. The engineer sits opposite the person who sits 3rd to the left of R. Only 1 person sits in between K and L. R sits 2nd to the right of S, the director. P does not sit opposite to the engineer and K is neither a doctor nor an engineer. The lawyer does not sit opposite the actor. Who is the doctor?

Ans: N

47. in a bag there are coins of 25 cents, 10 cents, 5cents in a ratio of 1:2:3. If there is \$30 in all, how many 5 cents coins are there?

Ans: 150

48. Nireesha sold her mobile at a loss of 12%. If her buying price and selling price are higher than Rs 5000 then loss would have been 8%. What was her original selling price?

- a. 7500
- b. 13800
- c. 8800
- d. 12000

Ans: 8800

49. The two numbers are respectively 20 percentage and 60 percentage more than the third number. The ratio of the two numbers is?

Ans: 3:4

50. Two numbers A and B are such that the sum of 5 percentage of A and 4 percentage of B is two-third of 6 percentage of A and 8 percentage of B. Find the ratio of A and B?

Ans: 4:3

51. At dinner there was a bowl of pudding for every two guests and bowl of punch for every three of them and a bowl of chicken for every four of them. If there were 65 bowls of food, then how many guests were there at a party?

Ans: 60

52. The difference between the simple interest and compound interest on a certain amount of money for 4 years at 10% per annum is Rs. 320.50. What is the sum of money?

Ans: 5000

53. The apartment complex management is planning to take the children to a cinema. They have informed the parents about the rules for this event which are as follows: 1. Every child below 4 years of age has to be accompanied by both parents. 2. Children of 4-12 years of age must be accompanied by either of the parents. 3. Children above 12 years must not be accompanied by any parent. The management is planning to send a few representatives and assistants along in the following way: A. For a group of every 10 children or a part thereof, there must be a representative. B. For a group of every 5 representatives or a part thereof, there must be an assistant. If the number of representative in the cinema is 10 then what would be the number of maximum people in cinema?

Ans: approx. 310

54. Seven people Queen, Paul, Rex, Sam, Tom, Unif and Vali are sitting in a row. Rex and Sam sit next to each other. There are exactly 4 person between Queen and Vali.....

Ans: Rex

55. In the business street of a town, there are five buildings in a row, each of which is occupied by a different company. The total number of floors that five buildings have are 9, 10, 13 and 14 in such a way that all the buildings have different total number of floors, except the two buildings which have 13 floors each. Names of the companies which have occupied these buildings are Hutch, Airtel, BPL, BSNL and Tatatel. Sum of the number of floors of two adjacent buildings is 23, in two instances. No two adjacent buildings have the same number of floors. Tatatel, which has 14 floors, is at the extreme left end of the street. The office of Airtel is exactly between the offices of Hutch and BSNL. Neither Hutch nor BSNL is in the building which has 9 floors. What is the number of floors of the building in which Airtel has its office? (1) 13 (2) 9 (3) 10 (4) Cannot be determined

Ans: 10

56. In a jungle the residents are either lions or parrots. When the heads are counted, it comes out to be 86, and when the legs are counted it is 300. Find the number of parrots in the jungle.

Ans: 22

57.If the sum of first 11 numbers in an arithmetic progression is same as the sum of first 19 numbers, then what is the sum of first 30 numbers?

Ans: Data insufficient

58.Consider a right circular cone of base radius 4 cm and height 10 cm. A cylinder is to be placed inside the cone with one of the flat surfaces resting on the base of the cone. Find the largest possible total surface area of the cylinder

Ans: $100\pi/3$

59.Two trains 200m long and 160 m long are running in opposite direction at the rate of 60km/h and 100km/h respectively. How long will the man on the second train see the first train for?

Ans: 4.5 sec

60.What is the sum of the first 10 number in series : 11, 17, 23, 29

Ans:380

61.The youngest member of Sunil's family is 1 year old. And the second-youngest member is 1 year older than the youngest one. And the third youngest member is 2 years older than the second and so on. How many members are there in Sunil's family?

Ans: 12 because, the order of the age of Sunil's family members is 1, 2, 4, 7, 11, 16, 22, 29, 37, 46, 56, 67

62.In a mixture of 6 liters, the ratio of juice and water is 2:1. If this ratio is to be 1:2, then the quantity of water to be further added is?

Ans: 6 liter

63.Ahmed ali made 100 runs which included 2 fours and 7 sixes. What is the percentage of his total score he make by running between the wickets?

Ans: 50%

64.the greatest number of four digit which is divisible by 15, 25, 40, and 75 is?

Ans: 9600

65.the difference between the squares of two consecutive even integers is divisible by which integer

Ans: 4

66.if 24 is subtracted from a number it reduces to its four-seventh. What is the product of the digit of that number?

Ans: 30

67.what are the last three digits in the binary expansion of the number 786269?

Ans: 101

68. A, B, C complete a work in 15, 20 and 30 days. They work together for sometime after which C left. A total of 18000 rs is paid for the work and B gets 6000 rs more than C. For how many days did A work?

Ans: So C worked for 2 days and A and B worked for 8 days each. The daily wage was Rs. 1000.

69. $4+4+4+4$ power 2

Ans: 28

70. A function $f(x)$ satisfies $f(1) = 3600$, and $f(1) + f(2) + \dots + f(n) = n^2 f(n)$, for all positive integers $n > 1$. What is the value of $f(9)$?

Ans: 80

71. In a circular sheet of aluminium foil, a diameter of 40 cms is cut into 4 smaller circles of radius 5 cms each. What is the ratio of the uncut to the cut portion?

Ans: 3:1

72. If $2x^2 - 7xy + 3y^2 = 0$, then the value of $x:y$ is

Ans: 3:1 and 1:2

73. Padmavati speaks the truth 3 times out of 4 and Varesha speaks the truth 7 times out of 10. Both of them assert that a white hat has been removed from a basket containing hats of 6 different colors. What is the probability of finding the white hat in the basket?

Ans: $\frac{21}{40}$ or $\frac{35}{36}$

74. Parul has a hollow spherical ball of thickness 3.5 cms and external diameter 21 cms. She cut it into 2 and painted one of the hemispheres completely. If the cost of paint is Rs. 2.50 per sq. cm. How much did Parul spend on painting? a. 5235 b. 4680 c. 3465 d. 7290

Ans: chat gpt → approx. 865 and 965, no matching ans found

75. If 20% of $a = b$ then $b\%$ of 20 is same as

Ans: 4% of a

76. An academic librarian, especially one who works primarily in a research consultation capacity, often encounters individuals who are seeking in-depth help with research projects that they struggle to explain. The number of concepts..... What is the central subject of this passage?

Ans:

77. PQRS is a square with X and Y as the midpoints of the sides PQ and PS respectively. What is the ratio of the area of the triangles YSR and XYR?

Ans: 1:2

78. what is the 101st number in the series 5 7 9 11

Ans: 205

79. The performance bonus of 2 Associates are in the ratio 9:10. If each of them receives an increase of 88 USD, the ratio of their wages will be 10:11. What are their respective wages before the increase?

Ans: 792 USD and 880 USD

80. $1000^9 + 10^{26}$

Ans: 10

81. The difference of the square of two consecutive integers is divisible by which integer?

Ans: 4

82. The sum of all four-digit numbers that can be formed using 1, 2, 3, 4 without repetition is

Ans: 6660

83. The average age of husband, wife and their child 3 years ago was 27 years and that of wife and the child 5 years ago was 20 years. The present age of husband is:

Ans: 40 years

84. In a stack of cards numbered from 1 to 20, if a card is drawn at a random, one after the other without replacement. How many ways can the draw be made so that the number on the second card shows a number greater than 1st?

Ans: 190

85. A vessel is full of a mixture of methanol and ethanol in which there is 20% ethanol. 10 litres of mixture are drawn off and filled with methanol. If the ethanol is now 15%, what is the capacity of the vessel?

Ans: 40L

86. Each pair of capitalized word given below are followed by the four pair of words. Choose the pair that does not exhibit the relationship similar to that expressed in the capitalized pair PRIZE: ACHIEVEMENT

a. Punishment: Crime

b. Fine: Offence

c. Traffic light: Jump

d. Reward: Good performance

Ans: Traffic Light: Jump

87. The extent to which proof is requisite Identify the writing style of author?

Ans: Descriptive

88.Exalt.....

Ans: The cruel prison guard....

89.Research policies observers are highly concerned about potential impact of current academic working conditions on mental health.....

Ans: To study the impact that the current academic working conditions are having on mental health of PhD students

90. India's baffling array of state and national labor law's.....

Ans: Outdated Indian labor law...

91.Spot the error in the following sentence. Joel complained to the governors, whom he suspected were misusing the school funds.

Ans. Who he suspected....

92.Choose the correct statement from the following.

- a. Bob went to Ireland every year.
- b. We had the chance to visit many parks in Holland last vacation.
- c. I have lived here for 1982.
- d. Francisco's collection of comic books will be worth 20,000.

Ans: B and D

93.Choose the correct statement from the following

- a. There have been doubts in weeks
- b. about the credibility of Presidential elections after
- c. it emerged that Yameen would be the only major candidate.
- d. No error.

Ans: b

94.Fill in the blanks. Democracy is better _____ through the ballot box than it is through the crowding of the main squares, which is a _____ image, but a misleading representation of people's will.

- a. focused, ineffective
- b. affected, moving
- c. effected, powerful
- d. realized, fleeting

Ans: d

95.Spot the error

- a. She ordered
- b. certain girl to
- c. make entry into
- d. the Manager's office

Ans: b

96. Choose the statement which expresses the idea most correctly.

a. If he was to decide to go abroad, I would recommend him to go to the United States.

b. If he was to decide to go to abroad, I would recommend him to go to the United States.

c. If he were to decide to go abroad, I would recommend him to go to the United States.

d. If he were to decide to go to abroad, I would recommend him to go to the United States.

Ans: c

97. The length breadth and height of a room are in the ratio 3:2:1. If the breadth and height are halved while the length is doubled, then total area of the four walls of the room will,

Ans: Decreased by 30%

98. In a classroom 8 seats are vacant in a row. In how many ways 5 persons can be seated in a row

Ans: 6720

99. If 24th November 2002 was a Sunday then on what date would the second Sunday of December 2002 fall

Ans: 12th December

100. The difference between the roots of a quadratic equation $6x^2 + wx + 1 = 0$ is $\frac{1}{6}$. If $w > 0$, then the value of w is

Ans: 5

101. Find the sum and product of the roots of the quadratic equation: $x^2 - 2x - 15 = 0$

Ans: -15, 2

102. Consider a 99 digit number created by writing side by side, the first fifty four natural numbers as follows: 12345678910111213 5354 The above number when divided by 8 will leave a remainder of

Ans: 2

103. The sum of 2 digit number is 10 and the difference between them is 2. What are the numbers?

Ans: 64

104. What is the unit digit in $584 \times 428 \times 667 \times 213$?

Ans: 2

105. The difference between the squares of two numbers is 256000 and the sum of the numbers is 1000. The numbers are :
Ans: 628, 372
106. Ten years ago, the ages of members of a joint family of eight people added up to 231 years. Three years later, one member died at the age of 60 years and a child was born in the same year. After another three years, one more member died, again at 60, and a child was born during the same year. The current average age of this eight member joint member is nearest to?
Ans: 24 years
107. The sum of adam and beth's age is 25 and difference is 13. Product of their ages is
Ans: 114
108. the roots of quadratic equation $3x^2 - 7x - 6$ are
Ans: 3, $-\frac{2}{3}$
109. The average of 20 numbers is zero. Of them, at the most, how many may be greater than zero?
Ans: 19