

Tnpsc Aptitude & Mental Ability 2021 Questions Part 1 in English**More Questions:** <https://wp.me/p7JanY-6T4>

1. On a palm tree of height 32 cubit, a chameleon tried to reach the top of the tree. If it climbed one hand span on it but slipped four fingers on one day. How many days will it take to reach the top of the tree?
(a) 96 days (b) 69 days (c) 94 days (d) 64 days (e) Answer not found
2. P, Q, R, S and T are sitting in a circle facing the centre. If R is immediate left of T and P is between S and T, who is to the immediate left of R?
(a) P (b) Q (c) S (d) T (e) Answer not known
3. The value of a motor cycle 2 years ago was ₹ 60,000. It depreciates at the rate of 5% per annum. Find its present value.
(a) ₹ 54,000 (b) ₹ 54,050 (c) ₹ 54,500 (d) ₹ 54,150 (e) Answer not known
4. A and B invest in a business in the ratio 3:2. If 5% of the total profit goes to charity and A's share is ₹ 855, then the total profit is
(a) ₹ 1,425 (b) ₹ 1,576 (c) ₹ 1,500 (d) ₹ 1,537.50 (e) Answer not known
5. The HCF of two numbers is 2 and their LCM is 154. If the difference between the numbers is 8 then the sum is
(a) 26 (b) 36 (c) 46 (d) 56 (e) Answer not known
6. Which of the following cannot be the HCF of two numbers whose LCM is 120?
(a) 60 (b) 40 (c) 80 (d) 30 (e) Answer not known
7. By selling a bicycle for ₹ 4,275, a shopkeeper loses 5% for how much should he sell it to have a profit of 5%?
(a) ₹ 4,625 (b) ₹ 4,725 (c) ₹ 4,825 (d) ₹ 4,925 (e) Answer not known
8. A number when decreased by 20% gives 80. Find the number.
(a) 40 (b) 60 (c) 100 (d) 120 (e) Answer not known
9. If the median of α , 2α , 4α , 6α , 9α is 8. Then find the value of ' α '
(a) 8 (b) 6 (c) 2 (d) 10 (e) Answer not known
10. The median of the data 24, 29, 34, 38, 35 and 30 is

(a) 29 (b) 30 (c) 34 **(d) 32** (e) Answer not known

11. For which set of numbers do the mean, median and mode all have the same values?

(a) 2, 2, 2, 4 **(b) 1, 3, 3, 3, 5** (c) 1, 1, 2, 5, 6 (d) 1, 1, 2, 1, 5 (e) Answer not known

12. Let m be the mid point and b be the upper limit of a continuous frequency distribution, the lower limit of the class is

(a) $2m - b$ (b) $2m + b$ (c) $m - b$ (d) $m - 25$ (e) Answer not known

13. A rod has a mass of 100 g and length 1 m. Its radius of gyration perpendicular to its length and passing through its centre of gravity is

(a) 0.2886 m (b) 2.886 m (c) 0.02886 m (d) 0.2688 m (e) Answer not known

14. The value of $(1^3 + 2^3 + 3^3 + \dots + 15^3) - (1 + 2 + 3 + \dots + 12)$ is

(a) 14400 (b) 14200 **(c) 14280** (d) 14520 (e) Answer not known

15. If $1 + 2 + 3 + \dots + n = 666$ then find n .

(a) 37 **(b) 36** (c) 38 (d) 35 (e) Answer not known

16. A metallic sphere of radius 16 cm is melted and recast into small spheres each of radius 2 cm. How many small spheres can be obtained?

(a) 412 **(b) 512** (c) 521 (d) 421 (e) Answer not known

17. A sphere, a cylinder and a cone are of the same radius, where as cone and cylinder are of same height. Find the ratio of their curved surface areas.

(a) $2\sqrt{2} : \sqrt{2} : 1$ (b) $2 : 1 : \sqrt{2}$ (c) $2 : \sqrt{2} : 1$ (d) $2\sqrt{2} : 1 : \sqrt{2}$ (e) Answer not known

18. If $x/5 = y/8$ then $(x+5):(y+8)$ is equal to

(a) 3:5 (b) 13:8 (c) 8:5 **(d) 5:8** (e) Answer not known

19. A mat of length 180 m is made by 15 women in 12 days. How long will it take for 32 women to make a mat of length 512 m?

(a) 13 (b) 14 (c) 15 **(d) 16** (e) Answer not known

20. The product of 2 digit numbers is 300 and their HCF is 5. What are the numbers?

(a) 15, 20 (b) 10, 20 (c) 15, 25 (d) 10, 15 (e) Answer not known

21. The number of number-pairs lying between 40 and 100 with their HCF is 15 is

(a) 3 (b) 4 (c) 5 (d) 6 (e) Answer not known

22. The value of $8.94 \times 8.94 \times 8.94 - 3.56 \times 3.56 \times 3.56 / 8.94 \times 8.94 + 8.94 \times 3.56 + 3.56 \times 3.56$ is

(a) 0.538 (b) 5.38 (c) 0.0538 (d) 53.8 (e) Answer not known

23. The value of $[4/3 - (-3/2)] + [-5/3 / 30/12]$ is

(a) $1 \frac{3}{6}$ (b) $13/6$ (c) $4/3$ (d) $-4/3$ (e) Answer not known

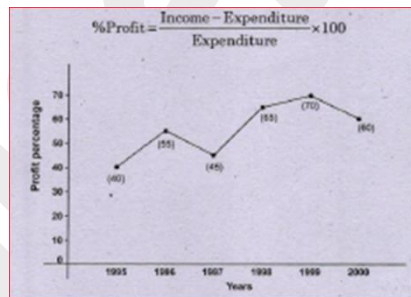
24. The number of times an observation occurs in the given data is called

(a) Tally marks (b) Data (c) Frequency (d) Numbers (e) Answer not known

25. Two numbers are in the ratio 5:7. If the sum of these numbers is 108, then the larger of these two numbers is

(a) 63 (b) 49 (c) 35 (d) 42 (e) Answer not known

26. The line graph shows the annual percent profit earned by a company during the period 1995 – 2000. Study the line graph and answer the following: If the expenditure in 2000 is 25% more than the expenditure in 1997, then the income in 1997 is what per cent less than the income in 2000?



(a) 22.5% (b) 25% (c) 27.5% (d) 31.25% (e) Answer not known

27. If $Z = 52$ and $ACT = 48$, then BAT will be equal to

(a) 39 (b) 41 (c) 44 (d) 46 (e) Answer not known

28. M5E\$RB3AK7#9\$UDIN4%FH2@8W. How many such consonants are there in the above sequence each of which is immediately followed by a number and immediately preceded by a vowel?

(a) One (b) Four (c) Three (d) Two (e) Answer not known

29. A can do a piece of work in 20 days and B can do it in 30 days. How long will they take to do the work together?

(a) 15 (b) 12 (c) 20 (d) 25 (e) Answer not known

30. A can do a piece of work in 8 days and B can do the same piece of work in 12 days. A and B together complete the same piece of work and get ₹ 200 as the combined wages. B's share of the wages will be

- (a) ₹ 75 **(b) ₹ 80** (c) ₹ 85 (d) ₹ 90 (e) Answer not known

31. The curved surface area of a right circular cone of height 15 cm and base diameter 16 cm is

- (a) $60\pi\text{ cm}^2$ (b) $68\pi\text{ cm}^2$ (c) $120\pi\text{ cm}^2$ **(d) $136\pi\text{ cm}^2$** (e) Answer not known

32. A machine bought at Rs. 50,000 falls in its value by 8% of its value every year. Find the value of the machine after 2 years.

- (a) ₹ 40,000 (b) ₹ 43,220 (c) ₹ 42,000 **(d) ₹ 42,320** (e) Answer not known

33. The value of a motor cycle 2 years ago was ₹ 70,000. It depreciates at the rate of 4% p.a. Find its present value.

- (a) 65312 (b) 64312 **(c) 64512** (d) 65412 (e) Answer not known

34. A sum of ₹ 46,000 was lent out at Simple Interest and at the end of 1 year and 9 months, the total amount was ₹ 52,440. Find the rate of interest per year.

- (a) 5% (b) 6% (c) 7% **(d) 8%** (e) Answer not known

35. If Karkuzhali earns ₹ 1,800 in 15 days, then she earns ₹ 3,000 in ----- days.

- (a) 25** (b) 20 (c) 15 (d) 10 (e) Answer not known

36. 10 lakh candidates write the TNPSC Exam this year. If each exam centre is allotted with 1000 candidates. How many exam centres would be needed?

- (a) 100 **(b) 1000** (c) 10000 (d) 100000 (e) Answer not known

37. The highest number which divides the product of any three consecutive even natural number is

- (a) 2 (b) 4 (c) 8 **(d) 16** (e) Answer not known

38. A competitive exam paper has 100 questions for which 1 mark will be awarded for each correct answer and $\frac{1}{2}$ mark will be deducted for every wrong answer. $\frac{1}{4}$ mark will be deducted for non-answering. Find the total mark scored by a candidate who answered 88 questions of which 61 are correct.

- (a) 61 **(b) 44.5** (c) 44.25 (d) 54 (e) Answer not known

39. 2, 4, 12, 48, 240,

- (a) 960 **(b) 1440** (c) 1080 (d) 1920 (e) Answer not known

40. In a theatre, there are 20 seats in the front row and 30 rows were allotted. Each successive row contains two additional seats than its front row. How many seats are there in the last row?

(a) 58 seats **(b) 78 seats** (c) 98 seats (d) 108 seats (e) Answer not known

41. When two dice are rolled the number of outcomes of getting the sum of the faces equal to 8 is?

(a) 4 **(b) 5** (c) 6 (d) 7 (e) Answer not known

42. The probability a red marble selected at a random from a Jar containing p red, q blue, and "r" green marbles is

(a) $q/p+q+r$ **(b) $p/p+q+r$** (c) $p+q/p+q+r$ (d) $p+r/p+q+r$ (e) Answer not known

43. A student can type 21 pages in 15 minutes. At the same rate, how long will it take the student to type 84 pages?

(a) 60 minutes (b) 50 minutes

(c) 70 minutes (d) 45 minutes (e) Answer not known

44. The breadth of a rectangular field is 60% of its length. If the perimeter of the field is 800 m, what is the area of the field?

(a) 18750 sq.m. **(b) 37500 sq.m.**

(c) 40000 sq.m. (d) 48000 sq.m. (e) Answer not known

45. The cost of a machine is ₹ 18,000 and it depreciates at $16\frac{2}{3}\%$ annually. Its value after 2 years will be

(a) ₹ 12,000 **(b) ₹ 12,500** (c) ₹ 15,000 (d) ₹ 16,500 (e) Answer not known

46. Find the difference between Simple Interest and Compound Interest for a sum of ₹ 8,000 lent at 10% per annum in 2 years.

(a) ₹ 60 (b) ₹ 70 **(c) ₹ 80** (d) ₹ 90 (e) Answer not known

47. If $a/b = 3/5$, $c/d = 4/7$ then a:b:c is

(a) 12:20:21 **(b) 12:20:35** (c) 15:28:35 (d) 28:20:12 (e) Answer not known

48. The largest four digit number which when divided by 4, 7 and 13 leaves a remainder 3 in each case is

(a) 9138 (b) 9318 (c) 9381 **(d) 9831** (e) Answer not known

49. Find the LCM of pair of the following polynomials $x^4-27\alpha^3x$, $(x-3\alpha)^2$, whose GCD is $(x-3\alpha)$

(a) $x(x-3\alpha)^2(x^2-3\alpha x+9\alpha^2)$ (b) $x(x+3\alpha)^2(x^2+3\alpha x+9\alpha^2)$

(c) $x(x-3\alpha)^2(x^2+3\alpha x-9\alpha^2)$ (d) $x(x-3\alpha)^2(x^2+3\alpha x+9\alpha^2)$ (e) Answer not known

50. Find the GCD of the following: $35x^5y^3z^4$, $49x^2yz^3$, $14xy^2z^2$.

(a) $7x^2y^2z^2$ (b) $7xyz$ (c) $14x^5y^3z^4$ (d) $7xyz^2$ (e) Answer not known

51. 10% of 5 and 5% of 10 add upto

(a) 0.10 (b) 0.25 (c) **1.0** (d) 2.5 (e) Answer not known

52. Find the value of k if $1^3 + 2^3 + \dots + k^3 = 44100$

(a) **20** (b) 21 (c) 22 (d) 23 (e) Answer not known

53. If $A = 2^{65}$ and $B = 2^{64} + 2^{63} + 2^{62} + \dots + 2^0$ which of the following is true?

(a) B is larger than A by 1 (b) **A is larger than B by 1**
 (c) A and B are equal (d) B is 2^{64} more than A (e) Answer not known

54. Find the missing number: 3, 12, 27, 48, 75, 108, -----

(a) **147** (b) 162 (c) 183 (d) 192 (e) Answer not known

55. In the given number pattern find the next term: $21/33$, $321/444$, $4321/5555$, -----

(a) $7531/6666$ (b) $1234/5555$
 (c) $4321/2222$ (d) **$54321/66666$** (e) Answer not known

56. If 'HUMBLE' is given by the code EHLUBM. What does the code EDUCATION mean?

(a) NEDOIUTCA (b) NEOIDUTCA
 (c) NEDUOITCA (d) **NEODIUTCA** (e) Answer not known

57. What is the probability of getting an even number when a die is thrown?

(a) $1/6$ (b) $2/3$ (c) **$1/2$** (d) $5/6$ (e) Answer not known

58. The present ages of Arun and Suresh are 24 years and 36 years respectively. What was the ratio between the ages of Suresh and Arun, 8 years ago?

(a) 4:7 (b) 6:5 (c) **7:4** (d) 3:2 (e) Answer not known

59. A and B together can do a piece of work in 16 days and A alone can do it in 48 days. How long will B alone take to complete the work?

(a) 18 days (b) **24 days** (c) 28 days (d) 30 days (e) Answer not known

60. 210 men working 12 hours a day can finish a job in 18 days. How many men are required to finish the job in 20 days working 14 hours a day?

(a) 156 men **(b) 162 men** (c) 168 men (d) 172 men (e) Answer not known

61. If 5 persons complete 5 projects in 5 days then 50 persons complete 50 projects in ----- days.

(a) 5 days (b) 10 days (c) 50 days (d) 55 days (e) Answer not known

62. A mason uses the expression $2x^3 + 16$ to represent the area of the rectangular floor of a room. If he decides that the length of the room will be represented by $2(x+2)$ then what will the width of the room be represented in terms of x ?

(a) $2(x-2)$ (b) (x^2-4) **(c) $(x^2 - 2x + 4)$** (d) $(x^2 + 2x - 4)$ (e) Answer not known

63. The volume of a solid hemisphere is 29106 cm^3 . Another hemisphere whose volume is two-third of the above is carved out. Find the radius of the new hemisphere.

(a) 21.5 cm (b) 12 cm **(c) 21 cm** (d) 23 cm (e) Answer not known

64. The difference between simple and compound interest on a certain sum of money for 2 years at 2% per annum is ₹ 4. Find the sum of money.

(a) ₹ 2,000 (b) ₹ 7,500 **(c) ₹ 10,000** (d) ₹ 12,000 (e) Answer not known

65. The difference between the compound interest and simple interest accrued on an amount of ₹ 18,000 in two years is ₹ 405. Then the rate of interest per annum is

(a) 12% **(b) 15%** (c) 18% (d) 10% (e) Answer not known

66. Find the rate of interest if the difference between CI and SI on ₹ 8,000 compounded annually for 2 years is ₹ 20

(a) 5% (b) 10% (c) 15% (d) 20% (e) Answer not known

67. Find the principal on amount ₹ 11,800 at 6% per annum for 3 years being simple interest annually.

(a) ₹ 8000 (b) ₹ 9000 **(c) ₹ 10,000** (d) ₹ 9,500 (e) Answer not known

68. The value of a machine depreciates at 10% per year. If the present value is ₹ 1,62,000. What is the worth of the machine after two years?

(a) ₹ 1,29,600 (b) ₹ 1,30,600

(c) ₹ 1,31,600 **(d) ₹ 1,31,220** (e) Answer not known

69. A sum of ₹ 48,000 was lent-out at simple interest and at the end of 2 years and 3 months the total amount was ₹ 55,560. Find the rate of interest per year.

- (a) 7% (b) 8% (c) 9% (d) 10% (e) Answer not known

70. Raghu wanted to find the height of a tree in his garden. He checked the ratio of his height to his shadow length. It was 4:1. He then measured the shadow of the tree. It was 15 feet. What was the height of the tree?

- (a) 15 feet (b) 30 feet (c) 60 feet (d) 75 feet (e) Answer not known

71. A shop keeper marked the price of an article as 15% more on its cost price and then offered 15% reduction for the article, then he got

- (a) Profit (b) Loss
(c) Neither Profit nor Loss (d) Profit as well as Loss (e) Answer not known

72. A hemispherical tank of radius 1.75 m is full of water. It is connected with a pipe which empties the tank at the rate of 7 litres per second. How much time will it take to empty the tank completely?

- (a) 27 minutes (b) 26 minutes
(c) 72 minutes (d) 62 minutes (e) Answer not known

73. Find the LCM of (x^4-1) , (x^2-2x+1)

- (a) $(x^2+1)(x+1)$ (b) $(x+1)(x-1)$
(c) $(x^2+1)(x-1)^2$ (d) $(x^2+1)(x+1)(x-1)^2$ (e) Answer not known

74. Find HCF of (x^2y+xy^2) , (x^2+xy)

- (a) $x + y$ (b) xy (c) $x(x + y)$ (d) $x^2 + y^2$ (e) Answer not known

75. Simplify $5\frac{1}{2} + \frac{3}{4}$ of $\frac{8}{9}$

- (a) $6\frac{1}{4}$ (b) $6\frac{1}{6}$ (c) $6\frac{8}{9}$ (d) $6\frac{4}{8}$ (e) Answer not known

76. Simplify: $\frac{4}{3} + \frac{3}{2} - \frac{5}{3} \div \frac{30}{12} - \frac{12}{9} \times \frac{-27}{16}$

- (a) $\frac{53}{12}$ (b) $\frac{43}{12}$ (c) $\frac{33}{12}$ (d) $\frac{13}{12}$ (e) Answer not known

77. Find the smallest number consisting of five digits which is exactly divisible by 16, 24, 36 and 54.

- (a) 10432 (b) 10064 (c) 10368 (d) 10362 (e) Answer not known

78. If $(a + b) : (b + c) : (c + a) = 6 : 7 : 8$ and $a + b + c = 14$ then the value of c is

(a) 6 (b) 8 (c) 14 (d) 7 (e) Answer not known

79. A metallic sphere of radius 32 cm is melted and recast into small sphere each of radius 2 cm. How many spheres can be obtained?

(a) 4096 (b) 512 (c) 1024 (d) 2048 (e) Answer not known

80. The value of $0.1 \times 0.1 + 0.01 \times 0.01 / 0.0101$

(a) 0.1 (b) 0.11 (c) 1 (d) 1.1 (e) Answer not known

81. The solution of $(2x-1)^2 = 9$ is equal to

(a) -1 (b) 2 (c) -1, 2 (d) 1, 2 (e) Answer not known

82. In examination out of 480 students, 85% of the girls and 70% of the boys passed. How many boys appeared in the examination? If total pass percentage was 75%?

(a) 370 (b) 360 (c) 340 (d) 320 (e) Answer not known

83. The square root of $49(x^2 - 2xy + y^2)^2$ is

(a) $7|x-y|$ (b) $7(x+y)(x-y)$ (c) $7(x+y)^2$ (d) $7(x-y)^2$ (e) Answer not known

84. LCM of $x^2y + xy^2, x^2 + xy$ is

(a) $x^2y + xy^2$ (b) $x^2 + xy$ (c) $x^2y(x+y)$ (d) $x(x+y)$ (e) Answer not known

85. If Rs.1,600 is divided among A and B in the ratio 3:5 then B's share is

(a) Rs.200 (b) Rs.480 (c) Rs.800 (d) Rs.1,000 (e) Answer not known

86. 6 men can finish a work in 24 days, if they work for 10 hours a day, how many days will 9 men take to finish the same work if they work for 8 hours a day?

(a) 20 days (b) 40 days (c) 10 days (d) 60 days (e) Answer not known

87. Right circular cylinder is a solid obtained by revolving ----- about its sides.

(a) Square (b) Rectangular (c) Parallelogram (d) Rhombus (e) Answer not known

88. If the ratio of volumes of two cones is 2:3 and the ratio of the radii of their bases is 1:2, then the ratio of their heights will be?

(a) 3:8 (b) 8:3 (c) 9:2 (d) 8:1 (e) Answer not known

89. If the radius of the base of a cone is tripled and height is doubled then the volume if made

(a) 6 times (b) 12 times **(c) 18 times** (d) Unchanged (e) Answer not known

90. There are 560 students in a school. Out of 560 students, 360 are boys. Find the percentage of girls in that school.

(a) 42.56% (b) 42.66% (c) 42.76% **(d) 42.86%** (e) Answer not known

91. If the Highest Common Factor of 210 and 55 is expressible in the form $55x - 325$, then $x =$

(a) 6 (b) 5 (c) 4 (d) 3 (e) Answer not known

92. Sathish Kumar bought a amount of Rs.52,000 from a person on simple interest. After 4 years he paid the total amount Rs.79,040 to the person then calculate the rate of simple interest

(a) 11% (b) 12% **(c) 13%** (d) 14% (e) Answer not known

93. Find the compound interest on Rs.9,600 at 12% per annum for 2 years 4 months. Compound annually.

(a) Rs.12,253 **(b) Rs.12,524** (c) Rs.12,853 (d) Rs.12,653 (e) Answer not known

94. Simplify: $(4356 \times 4356) - (2171 \times 2171) / 2185 \times 1/4356 + 2171$

(a) 0 **(b) 1** (c) 4356 (d) 2171 (e) Answer not known

95. The value of the motor cycle 2 years ago was Rs.70,000. It depreciates at the rate of 4%. Find the present value?

(a) Rs.67,000 (b) Rs.50,000 **(c) Rs.64,512** (d) Rs.66,000 (e) Answer not known

96. Solve: $4y/3 - y = 2/3 \times 2/y$

(a) +2 (b) 2 (c) -2 (d) 4/3 (e) Answer not known

97. The greatest four digit number which is exactly divisible by 8, 12, 15

(a) 9930 **(b) 9960** (c) 9920 (d) 9980 (e) Answer not known

98. LCM of two consecutive prime numbers is equal to their

(a) Sum of the two numbers **(b) Product of the two numbers** (c) Difference of the two numbers

(d) HCF of the two numbers (e) Answer not known

99. Find the LCM of $(2^3 \times 3 \times 5^2 \times 7)$, $(2^4 \times 3^2 \times 5 \times 7^2 \times 11)$ and $(2 \times 3^3 \times 5^4)$

(a) $2^4 \times 3^3 \times 5^4$ (b) $2 \times 3 \times 7 \times 5 \times 11$ **(c) $2^4 \times 3^3 \times 5^4 \times 7^2 \times 11$** (d) $2^4 \times 3^4 \times 5^4 \times 7$

(e) Answer not known

100. The ratio of the area of a circle to the area of its semicircle is

(a) 1:2 **(b) 2:1** (c) 4:1 (d) 1:4 (e) Answer not known

101. Senthil bought a car of Rs.4,26,000. He paid Rs.9,000 for transportation, and Rs.15,000 was paid for its insurance, then it was sold for Rs.4,41,000. What is the gain or loss percentage?

(a) Gain 5% (b) Loss 5% (c) Gain 2% **(d) Loss 2%** (e) Answer not known