

MindTree Selection Process:

The selection process of the company consists of 4 rounds. These rounds are as follows:

Written Exam (AMCAT)

Coding Test

Technical Interview

HR Interview

Pattern of Written Exam:

Section	Number of Questions	Time (in minutes)
Quantitative Ability	25	35 mins
English	25	25 mins
Logical Ability	24	35 mins
Coding	2	45 mins
Total	76	140 mins

Time allotted for the written exam is 140 minutes that is 95 minutes for the AMCAT (Quant+English+logical) and 45 minutes for coding test.

Quantitative Aptitude section consists of maths questions from the topics like **probability, permutation and combination** algebra, time & **work, time, speed & distance, trains, Averages**, arithmetic, **percentages, profit & loss, geometry, numbers, logarithms**, SI and CI, mensuration, Geometry Mixtures and alligation, chain rule, **Divisibility, HCF and LCM, Numbers**, decimal fractions and power etc. This section is of moderate level.

Logical Ability section consists series, blood relation, puzzles, calendars, clock, dice, direction sense, Logical Word Sequence, Coding pattern and Number series pattern recognition, Analogy and Classification, Data sufficiency, coded inequality, Sequential output tracing, syllogism, etc.

English section consists of basic questions from English language like synonyms, antonyms, sentence completion and correction etc.

Aptitude question:

1. In how many ways 10 persons can be arranged such that 3 are always together?
2. In how many ways 10 persons can be arranged such that 3 are never together?
3. In how many ways 10 boys and 10 girls can be arranged such that they are alternate?
4. In how many ways 14 boys and 13 girls can be arranged such that they are alternate?
5. In how many ways 12 boys and 6 girls can be arranged such that boys n girls are in their group?
6. In how many different ways can the letters of the word 'CORPORATION' be arranged so that the vowels always come together?
a) 810 b) 1440 c) 2880 d) 50400
7. How many 4-digit numbers can be formed from the digits 2, 3, 5, 0, 6, 8, 7 and 9, which are divisible by 2 and none of the digits is repeated?
a) 720 b) 750 c) 840 d) 810
8. How many 5-digit numbers can be formed from the digits 2, 3, 0, 4, 5, 6, 7 and 9, if none of the digits is repeated?
a) 5500 b) 5880 c) 5640 d) 5850

9. In how many ways a committee of 5 members can be selected from 6 men and 5 ladies, consisting of 3 men and 2 ladies:
a) 210 b) 240 c) 200 d) 260
10. A company has 10 software engineers and 6 civil engineers. In how many ways can a committee of 4 engineers be formed from them such that the committee must contain at least 1 civil engineer?
A. 1640 B. 1630 C. 1620 D. 1610
11. A box contains 4 red, 3 white and 2 blue balls. Three balls are drawn at random. Find out the number of ways of selecting the balls of different colours?
A. 62 B. 48 C. 12 D. 24
12. In a birthday party, every person shakes hand with every other person. If there was a total of 132 handshakes in the party, how many persons were present in the party?
13. . A box contains 4 red balls, 3 blue balls and 5 yellow balls. In how many ways 5 balls be selected so as there will be exactly 3 red balls?
14. A box contains 2 white balls, 3 black balls and 4 red balls. In how many ways can 3 balls be drawn from the box, if at most two red ball is to be included in the draw:
15. Three unbiased coins are tossed. What is the probability of getting at least two heads:
16. Three unbiased coins are tossed. What is the probability of getting at most two heads:
17. 6 unbiased coins are tossed. What is the probability of getting exactly two heads:
18. 7 unbiased coins are tossed. What is the probability of getting at most two heads:
19. What is the probability of getting a sum of 7 from two throw of a dice:
20. . What is the probability of getting a sum 9 from two throws of a dice?
a) $1/6$ b) $1/8$ c) $1/9$ d) $1/12$
21. What is probability of getting sum of numbers appeared on face of two dice is a prime number?
22. Amar, Bhavan and Chetan divide an amount of Rs.5600 among themselves in the ratio 3:6:5. If an amount of Rs.400 is deducted from each of their shares, what will be the new ratio of their shares of the amount?
A. 4:7:6 B. 1:4:3 C. 2:5:4 D. 5:11:9
23. Fourth proportional of 4,9 and 12 is:
a) 22 b) 24
c) 26 d) 27

EMBRYONIC: RUDIMENTARY, UNDEVELOPED, IMMATURE, INCHOATE, NASCENT, GERMINAL

23. The third proportional of 16 and 36 is:
a) 79 b) 80
c) 81 d) 82
24. The mean proportional of 144 and 225 is:
a) 160 b) 170
c) 180 d) 181
27. In a bag there are coins of 25P, 10p and 5p in the ratio 1:2:3. If there are Rs. 30 in all, how many 5p coins are there:
25. 50 b) 100
26. 150 d) 200
27. . The incomes of two persons A and B are in the ratio 3:4. If each saves Rs.100 per month, the ratio of their expenditures is 1:2 . Find their incomes?
A. 100, 200 B. 200, 300
C. 150, 200 D. 250, 300
28. A mixture contains alcohol and water in the ratio 4:3. If 5 litres of water is added to the mixture, the mixture ratio becomes 4:5. Then the quantity of alcohol in the mixture is:
8 litres b) 10 litres
12 litres d) 14 litres
28. . A vessel contains milk and water in the ratio of 4:3. If 14 litres of the mixture is drawn and filled with water, the ratio changes to 3:4. How much milk was there in the vessel initially?
a) 24

- b) 32
- c) 40
- d) 48
- e) None of these

29. A bucket contains liquid A and B in the ratio 4:5. 36 litre of the mixture is taken out and filled with 36 litre of B. Now the ratio changes to 2:5. Find the quantity of liquid B initially.

- a) 55ltr
- b) 56ltr
- c) 57ltr
- d) 58ltr

30. In the first 10 overs of a cricket game, the run rate was only 3.2. What should be the run rate in the remaining 40 overs to reach the target of 282 runs?

A. 6.25 B. 6.5 C. 6.75 D. 7

31. The average of runs of a cricket player of 10 innings was 32. How many runs must he make in his next inning so as to increase his average of runs by 4

a) 2 b) 4 c) 70 d) 76

32. A man whose bowling average is 12.4 takes 5 wicket for 26 runs and thereby decrease his average by 0.4. find the number of wicket taken by him before his last match.

a) 82 b) 84 c) 85 d) 88

33. A cricketer whose bowling average is 24.85runs/wicket, takes 5 wickets for 52 runs and thereby decreases his average by 0.85. The number of wickets taken by him till the last match was:

a) 64 b) 72 c) 80 d) 96

1. No. of zeroes in 100!
2. No. of zeroes in 120!
3. No. of zeroes in 100!
4. What is highest power of 7 in 200!
5. What is highest power of 6 in 200!
6. What is highest power of 15 in 200!
7. Find sum of $1+0.1+0.01+0.001+\dots$
8. Convert the decimal $0.\overline{083}$ into a fraction.
9. What rational number or fraction is equal to 0.5555555555 ans: $x = 5/9$
10. What rational number or fraction is equal to 1.04242424242 Ans: $x = 1032/990$

1. The product of all integers from 1 to 100 will have the following numbers of zeros at the end ?
a) 20 b) 24 c) 22 d) 28
2. The number of positive integers not greater than 100, which are not divisible by 2, 3 or 5 is ?
a) 26 b) 18 c) 31 d) none
3. If n is any odd number greater than 1, then $n(n^2 - 1)$ is always divisible by ?
a) 96 b) 48 c) 24 d) none
4. If a number 774958A96B is to be divisible by 8 and 9, the respective values of A and B will be?
a) 7 and 8 b) 8 and 0 c) 5 and 8 d) none of these

5. Three consecutive positive even numbers are such that thrice the first number exceeds double the third by 2, the third number is ?
 a) 10 b) 14 c) 16 d) 12
6. Three bells chime at intervals of 18 min, 24 min and 32 min respectively. At a certain time, they begin to together, What length of time will elapse before they chime together again ?
 a) 2 h 24min b) 4 h 48 min c) 1h 36 min d) 5h
7. Two positive integers differ by 4 and sum of their reciprocals is $\frac{10}{21}$. Then, one of the numbers is ?
 a) 3 b) 1 c) 5 d) 21
8. $(5^6 - 1)$ is divisible by ?
 a) 13 b) 31 c) 5 d) none
9. The remainder obtained when a prime number greater than 6 is divided by 6 is
 a) 1 or 3 b) 1 or 5 c) 2 or 3 d) 4 and 5
10. For the product $n(n+1)(2n+1)$, which one of the following is not necessarily true ?
 a) It is even b) Divisible by 3 c) divisible by $\frac{n(n+1)(2n+1)}{2}$ d) never divisible by 237
11. Which is the least number that must be subtracted from 1856 so that the remainder when divided by 7, 12, 16, is 4?
 a) 137 b) 1361 c) 140 d) 172

1. Which of the following statements is not correct?

- A. $\log_{10} 10 = 1$
- B. $\log (2 + 3) = \log (2 \times 3)$
- C. $\log_{10} 1 = 0$
- D. $\log (1 + 2 + 3) = \log 1 + \log 2 + \log 3$

2. If $\log_{10} 5 + \log_{10} (5x + 1) = \log_{10} (x + 5) + 1$, then x is equal to:

- A. 1
- B. 3
- C. 5
- D. 10

3. The value of $\frac{1}{\log 360} + \frac{1}{\log 460} + \frac{1}{\log 560}$ is:

- A. 0
- B. 1
- C. 5
- D. 60

4. If $\log(k^2 - 4k + 5) = 0$, then the value of k is

5. If $\log_4 \log_2 \log_3 (2x - 1) = \frac{1}{2}$, find x

6

If $\log_a b = \frac{1}{2}$, $\log_b c = \frac{1}{3}$ and $\log_c a = \frac{k}{5}$, the value of k is

7. What is the value of $\log(ab^2) - \log(ac) + \log(abc^4) - 3\log(bc)$?

8. The value of $\log_3 27$

9.

The value of $\frac{1}{\log 2} + \frac{1}{\log 3} + \frac{1}{\log 4} + \frac{1}{\log 5}$ is

$$\log_{xy}xyz \quad \log_{yz}xyz \quad \log_{zx}xyz$$

10. The value of $\log_2 3 \times \log_3 2 \times \log_3 4 \times \log_4 3$ is ?

11. The equation $\log_a x + \log_a (1+x) = 0$ can be written as ?

A. $x^2 + x - 1 = 0$

B. $x^2 + x + 1 = 0$

C. $x^2 + x - e = 0$

D. $x^2 + x + e = 0$

12. If $\log_5 (x^2 + x) - \log_5 (x + 1) = 2$, then the value of x is

A. 30 B. 25

C. 10 D. 5

13. If $\log_9 x + \log_3 x = 9$, then the value of x is

A. 27 B. 81

C. 243 D. 729

11. A cricketer played 80 innings and scored an average of 99 runs. His score in the last inning was zero run. To have an average of 100 at the end, his score in the last innings should have been

60 runs

80 runs

10 runs

1 run

12. A man spends an average of Rs. 1,694.70 per month for the first 7 months and Rs.1,810.50 per month for the next 5 months. His monthly salary if he saves Rs. 3,084.60 during the whole year is

Rs. 1000

Rs. 2000

Rs. 2400

Rs. 3000

13. A and B undertake to do a piece of work for Rs. 2,200. A alone can do it in 8 days, while B can do it in 6 days. With the help of C, they complete it in 3 days. Find C's share.

Rs. 150

Rs. 275

Rs. 245

Rs. 175

14. By selling an article at 80% of its marked price, a trader makes a loss of 10%. What will be the profit percentage if he sells it at 95% of its marked price?

5.9

12.5

6.9

5

15. By selling an umbrella for Rs. 30, a shopkeeper gains 20%. During a clearance sale, the shopkeeper allows a discount of 10% of the marked price. His gain during the sale season is

8

9

7

7.5

16. The Arithmetic mean of 5, 10, 12, 18, 20 is:

5

65

13

12

- 17. The number of sequence in which 7 players can throw a ball so that the youngest player may not be the last one.**

6(6!)

- 18.

19. From each of two given numbers, half the smaller number is subtracted. After such subtraction, the larger number is 4 times as large as the smaller number. What is the ratio of the numbers?

4 : 1

4 : 5

5 : 2

1 : 4

20. What is the largest number which divides 150, 180 and 144 leaving the same remainder in each case?

12

3

6

8

21. In an examination, 52% of the candidates failed in English and 43% failed in Mathematics. If 17% failed in both the subjects, then the percentage of candidates, who passed in both the subjects, was

25

22

23

21

22. Inspite scoring very high in the exam, Arun failed to secure admission in the college of his choice.

- since
- despite
- but
- even
- No correction required.

DIRECTIONS for the question 2-3: Read the sentence to find out whether there is any grammatical error or idiomatic error in it. The error, if any, will be in one part of the sentence. The number of that part is the answer. if there is 'No Error' the answer is (5). (Ignore errors of punctuation if any.)

• A good employee (1)/ is one which (2)/ is always willing (3)/ to go the extra mile. (4)/ No Error(5)

- 1
- 2
- 3
- 4
- 5

• Through her efforts (1)/ she manage to (2)/ open several institutions to (3)/ help the downtrodden. (4)/ No Error (5)

- 1
- 2
- 3

- 4
- 5

DIRECTIONS for the question 4-5: Fill in the blank with the right options provided.

- I _____ a friend named Raj who _____ a horse ranch in the city.
 - has, buys
 - need, holds
 - possess, runs
 - have, owns
 - got, sells
- As night _____ in the heights of the mountains, Ramesh could not _____ anything.
 - fell, see
 - darkened, view
 - rose, admire
 - dive, perceive
 - became, get

DIRECTIONS for the question 6-10: Passage

Inspired by the 'Vision-2020', we are conscious that we are a continent sized economy. When we begin to hum, the world will hear our song. Rightly, the policy makers have also worked out what they call a "strategic vision" for India. This includes global acceptance of India as a nuclear weapons power and getting a permanent seat in the UN Security Council. We need to project ourselves in the region. A global role has to be built on a regional foundation. No doubt, the road ahead is arduous. Endowed with massive man-power, abundant natural resources, a rich and riveting heritage, our prowess is not confined to any one field. A new study has ranked India second in the world, next only to the US, in terms of distribution of certified professionals in nine major categories, including computer software, finance and health care.

- What is the vision of India?
 - Global role
 - Global acceptance as a N-power.
 - Permanent place in the UN Security Council.
 - All these
- What has been the restraining factor for India?
 - Our neighbours
 - Politicians
 - Right way of projection in the region.
 - Distribution of programmes
- What is the objective of Indian policy makers?
 - Acceptance of India as a Nuclear Weapons power.
 - Get a permanent place in the UN Security Council.
 - To build India as an economic power.

- All these
- What aspects enable us to play a strategic global role?
 - Large economy
 - Rich heritage
 - Professional manpower
 - All these
- What is the difficulty in front of our policy makers?
 - Size of our economy
 - Global Acceptance
 - UN Security Council
 - None of these

DIRECTIONS for the question 9-10: Given an input line ; the machine arranges the words and numbers in steps in a systematic manner as illustrated afterwards : Study the pattern and answer the question that follows.

When a word and number arrangement machine is given an input line of words and numbers, it arranges them following a particular rule. The following is an illustration of input and rearrangement: (All the numbers are two digit numbers)

Input : 40 made butter 23 37 cookies salt extra 52 86 92 fell now 19

Step I : butter 19 40 made 23 37 cookies salt extra 52 86 92 fell now

Step II : cookies 23 butter 19 40 made 37 salt extra 52 86 92 fell now

Step III : extra 37 cookies 23 butter 19 40 made salt 52 86 92 fell now

Step IV : fell 40 extra 37 cookies 23 butter 19 made salt 52 86 92 now

Step V : made 52 fell 40 extra 37 cookies 23 butter 19 salt 86 92 now

Step VI : now 86 made 52 fell 40 extra 37 cookies 23 butter 19 salt 92

Step VII : salt 92 now 86 made 52 fell 40 extra 37 cookies 23 butter 19

Step VII is the last step of the above arrangement as the intended arrangement is obtained.

As per the rules followed in the given steps, find out the appropriate steps for the given input.

Input : 32 proud girl beautiful 48 55 97 rich family 61 72 17 nice life

How many steps will be required to complete the given input?

five

six

seven

eight

Which of the following is the third element from the left end of step VI?

beautiful

Life

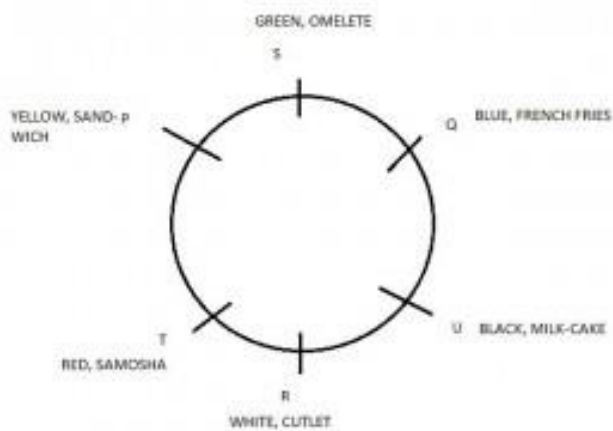
61

Nice

Six persons P, Q, R, S, T and U are sitting around a circular table facing towards the centre of the table in a restaurant. They have ordered for different items i.e. samosha, cutlet, French fries, omelette, sandwich and milk-cake. They are wearing T-shirts of different colours, i.e. white, black, green, red, yellow and blue but not necessarily in the same order.

- The person who have ordered for samosha, French fries and Sandwich are neither in white nor in black T- shirt.
- The person who are in green and yellow T-shirts have neither ordered for samosha nor for French fries
- P is neither in white T-shirt nor on the immediate left of the person who has ordered for omelette.
- The only person who is seated between T and U eats cutlet. The person who is on the left side of the person in white T-shirt does not eat Milk-cake.
- S has ordered for omelette and the colour of his T-shirt is green. He is facing the person who has ordered for Cutlet.
- One who has ordered for samosha is seated opposite to the person wearing blue T-shirt, while the person whose T-shirt is of green colour is on the left of the person who has ordered for sandwich.
- One who has ordered for milk-cake is on the immediate right of the person in white T-shirt but on the immediate left of the person who has ordered for French fries
- R has not ordered for french-fries while U has not ordered for samosha

Explanation



1. **Who among the following is in white T-shirt?**
 - a) P
 - b) T
 - c) U
 - d) R
 - e) None of these

Answer

Answer – d) R

2. **The only person between T and S is wearing T –shirt of which colour?**
 - a) red
 - b) black
 - c) yellow
 - d) green
 - e) None of these

Answer

Answer – c) **yellow**

3. **Who among the following has ordered for sandwich?**

- a) R
- b) S
- c) P
- d) T
- e) None of these

Answer

Answer – c) **P**

4. **Which of the following is correctly matched?**

- a) R-WHITE-MILKCAKE
- b) U-BLACK-SAMOSHA
- c) T-RED-SAMOSHA
- d) P-WHITE-OMELETE
- e) None of these

Answer

Answer – c) **T-RED-SAMOSHA**

5. **The colour of the T-shirt of the person, who has ordered for milk-cake, is-**

- a) green
- b) yellow
- c) blue
- d) red
- e) None of these

Answer

Answer – e) **None of these**

Direction(6-10): Study the following information carefully to answer the given questions

There are six boys P, Q, R, S, T and U. They want to go out with six girls A, B, C, D, E and F, not necessarily in the same order. The pairs went to different cities Delhi, Mumbai, Kolkata, Chennai and two of them went to Jaipur. They like different bikes viz KTM, Bullet, Pulsar and Apache. But KTM and Bullet are preferred by two pairs. Further information is as follows:

- P and S visit Jaipur but do not like either KTM or Apache
- U does not go out with E. Both of them do not like Pulsar.
- D and C wants to go to Delhi and Kolkata respectively. The persons visiting Mumbai like the same bike as Q does.
- R goes out with F to Mumbai but does not like either Bullet or Apache.
- Q goes to Delhi and likes KTM.
- T does not go out either with A or B; he does not go to Kolkata; he likes neither Pulsar nor Bullet.

Answer & Explanation

P	A/B	JAIPUR	BULLET/PULSAR
Q	D	DELHI	KTM
R	F	MUMBAI	KTM
S	A/B	JAIPUR	BULLET/PULSAR
T	E	CHENNAI	APACHE
U	C	KOLKATA	BULLET

6. Which bike does C like?

- a) KTM
- b) Bullet
- c) Apache
- d) Pulsar
- e) None of these

Answer

Answer – b) Bullet

7. If P goes out with A, who among the following likes Pulsar ?

- a) Q
- b) R
- c) T
- d) P
- e) can't be determine

Answer

Answer – e) can't be determine

8. Who went to Chennai?

- a) RF
- b) UC
- c) QD
- d) TE
- e) None of these

Answer

Answer – d) TE

9. Which bike does C like?

- a) Apache
- b) Pulsar
- c) Bullet
- d) KTM
- e) None of these

Answer

Answer – c) Bullet

10. Who among the following visits Kolkata?

- a) C
- b) Q
- c) P

- d) U
- e) Both a and d

Ans e

Eight friends P, Q, R, S, T, V, W and Z, out of whom one is a Pilot, Professor, Businessman, Doctor, Lawyer, Banker, Cricketer or an Architect (but not necessarily in the same order), are sitting among a circular table, facing the centre.

- S who is a banker sits third to right of Z
- The professor and the architect are immediate neighbors of each other, neither the professor the architect is an immediate neighbor of either Z or S.
- Cricketer and the pilot are immediate neighbors of each other. Neither Z nor W is a pilot.
- The one who is a professor sits second to the right of T who is a lawyer. V who is a cricketer is not an immediate neighbor of the banker.
- Only R sits between the professor and the doctor. P sits third to the right of the pilot

Questions:

1. Which of the following pairs represents the immediate neighbours of the doctor ?

- 1) Professor-businessman
- 2) Pilot - professor
- 3) Cricketer - businessman
- 4) Lawyer - architect
- 5) None of these

2. What is the position of the businessman with respect to the pilot?

- 1) Third to the left
- 2) Second to the left
- 3) Immediately to the right
- 4) Fourth to the right
- 5) Second to the right

3. Who sits third to the right of the professor ?

- 1) The banker
- 2) Q
- 3) The cricketer
- 4) The lawyer
- 5) None of these

4. Which of the following is true regarding R ?

- 1) He is a doctor
- 2) He is an immediate neighbour of the pilot
- 3) R sits between Q and T
- 4) He is an immediate neighbour of the professor
- 5) None is true

5. How many people sit between the 'banker' and 'W' when counted in anticlockwise direction from the banker?

- 1) None
- 2) One

- 3) Two
- 4) Three
- 5) Four

6. Who amongst the following is a pilot ?

- 1) P
- 2) Q
- 3) R
- 4) Z
- 5) None of these

7. What is the profession of Z ?

- 1) Businessman
- 2) Architect
- 3) Professor
- 4) Doctor
- 5) None of these

8. Who amongst the following sits exactly between T and Q ?

- 1) Cricketer
- 2) Architect
- 3) Professor
- 4) Doctor
- 5) Banker