Tech giant TCS has flagged off its largest hiring drive, TCS Ninja, for 2022 pass-outs. One such drive concluded on **13-September-2021** with the first slot happening from **9:00 AM to 12:00 PM**. If you're appearing for the drive, this FREE Slot Analysis PDF, covering the Latest Recruitment Process, Test Pattern, Syllabus, and Most Recently Asked Questions, will help you.

Disclaimer:

1. The questions showcased in this document have been recreated through memory, thanks to test-takers who recalled the questions post their test.

2. The questions repetition between the slots is expected to be very miniscule.

3. Please use this document as an indicative preparation tool, rather than exact replica of the questions that appeared or can appear in the TCS Ninja Online Test.

TCS Ninja Role and Packages

TCS Ninja is a job role that gets offered by TCS to fresh recruits (freshers). TCS offers the following package based on UG/PG category.
UG: INR 3,36,877 + 60,000*
PG: INR 3,53,578 + 60,000*
Additional one-time incentive based on the performance in Xplore

TCS Ninja Recruitment Process

1. Online Test
2. Technical, Managerial and HR Interview

TCS Ninja Online Test Pattern

Part	Part Name	Section	#Q	Duration (In Mins)
A	Cognitive Skills	Numerical Ability	26	40
		Verbal Ability	24	30
		Reasoning Ability	30	50
B	Programming	Programming Logic	10	15
		Hands-on Coding	2	45

TCS Ninja Online Test Assessment Platform

Assessment Platform	Inter-sectional Navigation	Intra-sectional Navigation	Marking Scheme
TCS - iON	Not Allowed	Not Allowed	No Negative Marking

Note:
1. Previously answered questions cannot be revisited.
2. Each Question needs to be solved in a particular time.
3. Questions cannot be skipped and every question is mandatory.
4. Calculator is present on-screen.
5. **C/C++/Java/Python/Perl** languages are allowed for Coding.

TCS Ninja Online Test Syllabus

Section	Syllabus
Numerical Ability	- Simple and Compound Interest - Simplification - Fractions, BODMAS - Statistics (Mean, Median, Mode, Standard Deviation) - Percentages - Time and Work - Efficiency and Man-days - Problems on Ages - Time, Speed and Distance - Mensuration - Profit and Loss - Equations - Ratios and Proportions - Data Interpretation

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	● Surds and Indices ● Mixtures and Alligations ● Number system ● Decision tables ● Partnerships
Verbal Ability	● Reading Comprehension ● Passage Completion ● Error spotting ● Sentence Completion ● Knowledge of Formal/ Informal Language ● Sentence Improvement ● Knowledge of Spelling ● Vocabulary ● Para-jumble
Reasoning Ability	● Decision tables ● Venn Diagrams ● Statements and Assumptions ● Blood Relations ● Paper cuttings ● Visual Reasoning ● Unboxing of a cube ● Data Sufficiency ● Syllogisms ● Statements - Course of action ● Odd one out, Series, Analogy ● Attention to Details ● Rule-based decision making ● Averages ● Percentages ● Data Interpretation ● Statements and Arguments ● Statements and Conclusions
Programming Logic	● Pseudo coding ● Algorithms ● Basic Software Development Cycle ● Operators ● Looping statements ● Control statements ● Arrays ● Strings

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	● Functions ● Object-Oriented Programming (OOPS) ● Data Structures: Linked List, Stack, Queue, Trees and Graphs
Hands-on Coding	**Fundamentals of Programming:** ● Data types, Operators ● Arrays ● Strings ● Decision Making ● Looping ● Functions

TCS Ninja Slot Analysis

- There was 100% repetition of topics from the syllabus trained by FACE Prep in its TCS Ninja/ NQT training.
- Most of the questions during a slot remained the same, but some students also got a few new questions too.
- The order of questions and options was shuffled between test-takers of the same slot.
- The presence of the question-wise timer (which varies from question to question) was a major impediment for test-takers.
- Numerical Ability Section's questions were of Moderate Difficulty Level.
- Most of the Questions of the Numerical Ability Section were from Simplifications, Percentages, Data Interpretations and Statistics.
- Verbal Ability Sections' questions' difficulty level ranged from Easy to Moderate.
- Reasoning Ability Section's questions were of Moderate Difficulty Level.
- Most of the questions of Reasoning Ability sections were from Visual Reasoning, Cubes, Data Sufficiency, Syllogism and Analogy.
- The Programming Logic section's questions difficulty level was easy.
- Most of the questions of the programming logic section were from output prediction, tree-traversal and Basic SDLC concepts.
- Coding Section questions were of moderate difficulty level.
- Overall level of the test settles around MODERATE.

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TCS Ninja Numerical Ability Questions

Q1. A number 452p36 is such that it is divisible by 36. What can the value of p^2 be?
A. 36
B. 49
C. 25
D. 16
Answer: B

Q2. Find the value of $\dfrac{(5.7)^4+(3.3)^4+(18.81)^2}{(5.7)^2+(3.3)^2-(18.81)} = ?$

A. 53.89
B. 61.79
C. 59.59
D. 62.19
Answer: D

Q3.

If $x = \dfrac{7}{12} \div \dfrac{3}{4}$ of $\left(3\,\dfrac{1}{3} - \dfrac{5}{2}\right) - \dfrac{4}{15}$ and $y = (0.9\overline{1} \div 0.\overline{82}) \times \dfrac{2}{11}$, then the value of $(x \div y)$ is:

A. 2/15
B. 2 1/6
C. 6 2/3
D. 3 1/3
Answer: 1.899999 (Options are wrong)

Q4. The value of $\dfrac{(8.3)^2+(7.9)^2+6.2(6.2+7.9+8.3)-8.3 \times 7.9}{(83)^3+(79)^3-(62)^3+83 \times 237 \times 62}$

A. 0.001
B. 0.1
C. 0.0001
D. 0.01
Answer: C

Q5. The price of a commodity is reduced by 40% but its consumption is increased by 35%. What percent of the consumption should be increased so as to keep the same expenditure as before? (correct to one decimal place)
A. 24.2
B. 15.4
C. 18.5
D. 23.5
Answer: D

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Q6. The expenditure of Rashmi is equal to 225% of her savings. If her income increases by 20% and the expenditure increases by 40%, then her savings will _____
A. decrease by 20%
B. increase by 25%
C. increase by 33(⅓)%
D. decrease by 25%
Answer: D

Q7. A business lady bought 400 handbags. She sold 100 of them at a profit of 20% and the rest at 10% profit. Find her overall profit %.
A. 11.25%
B. 12.5%
C. 16.75%
D. 13.75%
Answer: B

Q8. Rajesh runs a shop where he sells articles which are of equal marked prices. Rajesh had bought each of these articles at an equal cost price. Even after selling articles at a discount of 20%, Rajesh earns a profit of 20%. If on a particular day Rajesh earned a profit equal to the cost price of 100 articles by selling articles at marked price, how many articles did Rajesh sell on that day?
A. 200
B. 150
C. 100
D. 300
Answer: A

Q9. Simple interest on a sum after 32 months at 24 (4/9) % rate of interest is Rs. 7040. What is the compound interest on 28 ⅓ % more sum at 20% rate of interest after 2 years?
A. Rs. 5575.4
B. Rs. 5447.4
C. Rs. 6098.4
D. Rs. 6194.4
Answer: C

Q10. A loan of Rs. 52160 has to be returned in two equal annual installments. If the rate of interest is 3.75% p.a., compounded yearly, the total interest to be paid is
A. Rs. 2824
B. Rs. 2842
C. Rs. 2925
D. Rs. 2952
Answer: D

Q10. In a school, a total of 12 cakes of 1.5 kg each are ordered for the distribution of cakes to the children. Each boy is given 20 grams of a piece of cake and each of the girls is given a piece of 30 grams of cake. The number of girls in the school is twice the number of boys. Find the total number of children in the school.
A. 675
B. 650
C. 475
D. 525
Answer: A

Q11. 30L container has pure milk. 3L of milk is taken out and replaced with water. How many times this process must be done so that the concentration of pure milk reduces by 27.1%?
A. 3
B. 4
C. 2
D. 1
Answer: A

Q12. Vessels A and B contain solutions of only alcohol and water. The ratio of alcohol and water A is 3:5 and in B, it is 9:7. The contents of A and B are mixed in the ratio 3:2. How much water(in mL) should be added to 180 mL of the resulting solution to get a new solution containing alcohol and water in the ratio 1:2?
A. 68
B. 63
C. 65
D. 70
Answer: B

Q13. Working 9 hours daily, 32 men can complete a piece of work in 25 days. In how many days, can 40 men complete 2.5 times the same work working 6 hours daily?
A. 75
B. 72
C. 60
D. 80
Answer: A

Q14. A water taxi requires 9 hrs to cover 20 km upstream or 120 km downstream. Find the total time it takes for a round trip between city A and city B, separated by a distance of 40 km.
A. 15
B. 21
C. 22.5
D. 18
Answer: B

Q15. Two-fifth of a tank can be filled by pipe A in six hours, three-eighth of the tank can be filled by pipe B in four and a half hours, while pipe C attached at the bottom of the tank can empty one-fifth of the tank in

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ten hours. All the three pipes are opened simultaneously, when the tank is empty. In how much time will the tank be filled completely?

A. 6 hours

B. 8 hours

C. 7 hours

D. 9 hours

Answer: B

Q16. Two persons were approaching each other at 12 km/hr and 24 km/hr respectively. A train moving in the same direction as the faster man took 25 seconds to cross him and 15 seconds to cross the other one. Find the speed of the train (in km/hr).

A. 60

B. 45

C. 78

D. 66

Answer: C

Q17. At a shop, the price of rice per kg is Rs. 15 less than the price of wheat per kg, while the price of black gram is Rs. 10 more than the price of wheat per kg. A customer bought six kg each of rice, wheat, and black gram for Rs. 780. What is the price of 2 kg of rice and 3 kg of black gram?

A. Rs. 225

B. Rs. 165

C. Rs. 195

D. Rs. 255

Answer: A

Q18. Two parallel sides of a trapezium are in the ratio of 4:3 and the distance between the two parallel sides is 50% less than the sum of the lengths of the two parallel sides. Find the sum of the lengths of the two parallel sides if the area of the trapezium is 784 sq.cm.

A. 35 cm

B. 28 cm

C. 42 cm

D. 56 cm

Answer: B

Q19. A candle in the shape of a cylinder has a radius of 12 cm and is 4 cm long.By how many centimeters can the length be increased so that when the radius is increased by the same amount, the weight of the candle increases equally?

A. 12 cm

B. 6 cm

C. 4 cm

D. 8 cm

Answer: B

Q20. Let x, y and z be the mean, median and range, respectively of the following data:

10, 7, 12, 21, 37, 14, 19, 28, 18, 12 and 42.

What is the value of (x+y-z)?

A. 3
B. 4
C. 2
D. 7

Answer: A

Q21. If the standard deviation of $x_1, x_2, \ldots, x_n$ is S, the variance of $x_1 + c, x_2 + c,$ is _____

A. 28
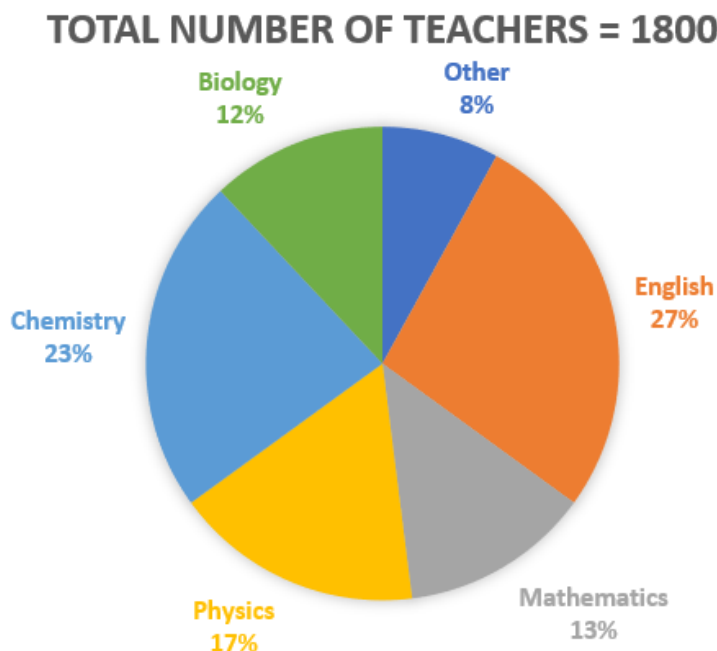B. 8
C. s^2
D. s

Answer: s^2

Q22. Three years ago, the average age of a family of four members was 26 years. The average age of the two children of the family five years ago was eight years. What is the age of the elder persons of the family?

A. 50 yrs
B. 45 yrs
C. 35 yrs
D. 40 yrs

Answer: B

Q23. The percentage wise distribution of teachers who teach six different subjects is as follows.

Total number of teachers = 1800

What is the total number of teachers teaching Chemistry, English and Biology?

A. 1226
B. 1176
C. 1116

D. 998

Answer: C

Q24. Study the following table which shows the number of computers sold by stores A and B in January to June 2020, and answer the question that follows:

Months	Stores	
	A	B
January	185	280
February	225	255
March	250	320
April	200	265
May	315	300
June	425	320

The average number of computers (per month) sold by store B in February, April and June is what percent more than the average number of computers sold by store A in January and May?

A. 12%

B. 10%

C. 12.5%

D. 7.5%

Answer: A

TCS Ninja Verbal Ability Questions

Q1. One part of the sentence below may contain an error. Identify the part. If there is no error, choose 'No error'.
A sociologist studies the ways in which people live together, raise their family and follow community structures and customs.

A. and follow community structures and customs.
B. A sociologist study the ways in which
C. people live together, raise their family
D. No error
Answer: B

Q2. One part of the sentence below may contain an error. Identify the part. If there is no error, choose 'No error'.
May you carry these books for me, please?

A. No error
B. carry these books
C. for me, please?
D. May you
Answer: D

Q3. One part of the sentence below may contain an error. Identify the part. If there is no error, choose 'No error'.
Neither of them are going to attend the meeting
A. No error
B. going to
C. Neither of them are
D. attend the meeting
Answer: C

Q4. Read the following paragraph and fill in the blanks by selecting the appropriate words.
The cost of production of electricity has increased in the last two years. Because of high production changes, the government has ___1___ the people to reduce their electricity ___2___. Hopefully, the situation will be at ease in the coming years.
Blank 1: A. persuaded B. funded C. resulted D. convinced
Blank 2: A. connection B. consumption C. station D. meter

A. 1-D, 2-C
B. 1-C, 2-D
C. 1-A, 2-B
D. 1-B, 2-A
Answer: C

Q5. Select the most appropriate option to fill in the blank
Eagles can fly _____ sparrows.
A. taller than
B. higher than
C. taller then
D. higher then
Answer: B

Q6. Read the following paragraph and fill in the blanks by selecting the appropriate words.

There are many hobbies that one can practise for leisure. Travelling for exploration can be one of the most 1._____ hobbies one can practise. Nevertheless, it is the most expensive too, as nowadays the airfares are 2._____. However, one can still explore cheaper options and nearby destinations for travelling.

Blank 1: A. nourishing B. glorifying C. dissatisfying D. fulfilling
Blank 2: A. distribution B. refunding C. decreasing D. skyrocketing

A. 1-A, 2-B
B. 1-D, 2-A
C. 1-B, 2-C
D. 1-D, 2-D
Answer: D

Q7. Read the following sentence and fill in the blank by selecting the appropriate word.
The most obvious evil of the advertisement industry lies in the exaggerated _____ of the products actual goodness.
A. misinformation
B. determination
C. judgement
D. portrayal
Answer: A

Q8. Read the following sentence and fill in the blank by selecting the appropriate word.
It is not easy to _____ the profoundness of a mother's love for her child.

A. overestimate
B. fluctuate
C. equate
D. evaluate
Answer: C

Q9. For the four-sentence (S1 to S4) paragraph below, sentence S1 and S4 are given. From the options P,Q and R, choose the most appropriate sentences for S2 and S3 respectively.

S1. Recently a study was undertaken in the school of the UK to ascertain which country's children have the highest IQ.
S2.
S3.
S4. Though the validity of IQ as a measure of the intelligence is debatable, this study surely lifted the spirit of the Indian children.

P. The study revealed that the Indian children were superior to the natives of other countries.
Q. This result was mighty surprising for many education experts.
R. If this is the truth, then why is there a brain drain in India?

A. QR
B. PQ
C. RP
D. PR
Answer: B

Q10. For the four sentence (s1 to S4) paragraph given below, sentences S1 and S4 are given. From the options P, Q and R, choose the appropriate sentences for S2 and S3 respectively.

S1. Research suggests that the price of products and advertisements motivate customers to try out new products
S2.
S3.
S4. Above all, the credibility of the source of the advertised message affects the consumers judgement of the performance risk associated with the product being advertised.

P. The conflicting findings may be due to the nature of advertisements
Q. The relationship between price and perceived performance risk is also impacted by the presentation of an advertised message.
R. A relatively high price will reduce the consumer's perception of performance risk.

A. QP
B. QR
C. RQ
D. PQ
Answer: A

Q11. For the four sentence (s1 to S4) paragraph given below, sentences S1 and S4 are given. From the options P, Q and R, choose the appropriate sentences for S2 and S3 respectively.

S1. Free play is much better in benefits and scope than structured play during early childhood
S2.
S3.

S4. Which leaves no room for free-thinking, imagination, make-believe games and overall development of a child's wild mind

P. Both free-play and structured play can be combined in suitable proportions for the optimal development of a child's mind
Q. The former opens up a plethora of possibilities for widening the horizons of a child's imagination
R. Whereas, the latter confines a child's mind within certain rules of the game

A. RP
B. QP
C. PQ
D. QR
Answer: D

Q12. You are going to read a text about anger management. Some sentences are missing from the text. Choose from the list (A-C) the most appropriate sentence for each gap (1-2) in the text.
There is one extra sentence/part that you do not need to use.

Loving someone and receiving love are essential elements in emotional health. _____1_____ People tend to harbour resentment and hatred against someone who wronged them. They would be surprised to see how close they feel to that person after releasing their negative emotions and energy. _____2_____

A. But expressing anger instead of repressing it is also necessary to vent frustration.
B. This helps in building trust and mutual respect for others.
C. If only people can learn the art of managing their anger and resentment.

A. 1-C, 2-A
B. 1-A, 2-C
C. 1-A, 2-B
D. 1-B, 2-A
Answer: D

Q13. You are going to read about Health. Some sentences are missing from the text. Choose from the list (A-C) the most appropriate sentence for each gap (1-2) in the text. There is one extra sentence that you do NOT need to use .
We do not understand the value of good health until is lost 1 _____ Good health is a blessing to cherish and an asset to protect. 2 _____Eating healthy, having ample sleep, and not indulging in smoking or drinking are a few of the rules of good health.

A. It is human nature to disregard everything that is easily available to them.
B. We must make efforts to keep our lifestyle in accordance with the rules of good health.
C. We should also pay visits to the doctor for complete body check-ups at regular intervals.
A. (1)-C, (2)-A
B. (1)-A, (2)-B

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C. (1)-B, (2)-A
D. (1)-C, (2)-B
Answer: B

Q14. You are going to read a text supplements. Some sentences are missing from the text. Choose from the list (A-C) the most appropriate sentence for each gap (1-2) in the text. There is one extra sentence/part that you do not need to use.

When one takes calcium supplement, one must also make sure that diet is rich in vitamin D, ___1___. If there is not sufficient vitamin D intake, body does not generate hormone calcitriol. Then the body starts to take calcium from its deposits in the skeleton, ___2___

A. because this vitamin makes the absorption of the calcium possible
B. because this vitamin is also very good for bone health
C. which weakens existing bone and gradually diminishes whole structure

A. 1-A, 2-B
B. 1-C, 2-A
C. 1-A, 2-C
D. 1-B, 2-C
Answer: C

Q15. The following sentence pair can be combined into one better sentence. Choose the option that combines the two sentences best without changing the meaning.

The father was happy on his son's birthday. The son was feeding hundred poor men instead of throwing a birthday party.

A. The father was happy to see his son feeding hundred poor men on his birthday instead of throwing a birthday party.
B. The father was happy to see his son throwing a birthday party instead of feeding hundred poor men.
C. The father was happy on his son's birthday, so the son was feeding hundred poor men instead of throwing a birthday party.
D. The father was happy to see his son feeding hundred poor men on his birthday and throwing a birthday party.
Answer: A

Q16. Which of the following sentences uses formal language?

A. You're not a part of this project
B. May I have your introduction?
C. Go on, prove yourself to the world
D. We'll meet you in an hour
Answer: D

TCS Ninja Reasoning Ability Questions

Q1. Which is the WRONG term in the following series?
BEG, DGI, GJL, KMP, PSU
A. GJL
B. DGI
C. KMP
D. PSU
Answer: C

Q2. In each of the four pairs of letter-clusters, the letters in the second term are in a rearrange/transformed form of the letters from the first term in a particular pattern. In which two pairs, has the transformation been done the same way?
[A] MASTER - RTSMAF
[B] POSTAL - LTOPSA
[C] HASTEN - NTSAHE
[D] FATHER - RHAFTE

A. B and C
B. A and D
C. B and D
D. A and C
Answer: B

Q3. Given below is a question followed by two statements, I and II each containing some information. Decide which of the following statement(s) is/are sufficient to answer the question.
What is the sum of the roots of the quadratic equation $ax^2+bx+c = 0$?

1. The roots of $ax^2+bx+c = 0$ are successive integers whose product is 30
2. The roots of $ax^2+bx+c = 0$ are distinct integers such that the sum of their squares is 72

A. If the question cannot be answered even by using both the statements together
B. If the question can be answered by using both statements together but cannot be answered by using either statement alone
C. If the question can be answered by using either statement alone
D. If the question can be answered by using one of the statements alone but cannot be answered by using the other statement alone
Answer: D

Q4. Given below is a question followed by two statements, I and II each containing some information. Decide which of the following statement(s) is/are sufficient to answer the question.

What is the average age of the father, mother and son?

Statements:

I. The ratio of the age of the mother and son is 5:3. Father is 4 years older than the mother, who was as old as the sons 22 years ago.

II. The son is now as old as the father was 26 years ago. The average age of the father and mother is 57 years.

A. Both the statements I and II together are not sufficient.
B. Statement I alone is sufficient.
C. Statement II alone is sufficient.
D. Both the statements I and II are necessary.
Answer: C

Q5. Given below is a question followed by three statements I, II and III, each containing some information. Decide which of the given statements is CORRECT.

Six persons A, B, C, D, E and F are sitting around a circular table facing towards centre. Who sits second to the right of D?

I. C and D are immediate neighbours and C is sitting opposite B.
II. A is not a neighbour of E, but is a neighbour of B.
III. D is not a neighbour of A, but is second to the right of F.

A. Only I and III
B. Only I and II
C. Only II and III
D. All three together
Answer: B

Q6. In a certain code, if;
A-B means, A is wife of B
A/B means, A is brother of B
A+B means, A is daughter of B
AxB means, A is son of B

Which of the following expressions represent that D is the father of B?

A. B/D+I-K
B. BxD/K-I
C. B/I-DxK
D. I-K+D+B
Answer: B

Q7. In a certain code, if:

If 'A x B' means A is the son of B.
If 'A + B' means A is the father of B.
If 'A > B' means A is the daughter of B.
If 'A < B' means A is the wife of B.

Which of the following pairs of people represents cousins with regard to the relations given in the expressions, if it is provided that A is the sister of J?
'L > V < J + P' and 'S X A < D + F < E + K'

A. SV
B. SP
C. LP
D. SF
Answer: B

Q8. Six movies are played on six consecutive days of the week, starting from Monday. Rambo is played after Diago, Noorie is telecast between Diago and Akira. Blade is played immediately after Hungaama but before Akira. Which movie is played on Tuesday?
A. Noorie
B. Hungaama
C. Blade
D. Akira
Answer: C

Q9. Seven coloured balls -Violet, Purple, Blue, Green, Yellow, Orange and Red are put together in a row during a game. Yellow ball is to the immediate left of Purple ball. Violet is to the left of Blue but not between Blue and Purple. Exactly four balls are between Blue and Purple. If Violet and Green have two balls between them, how many balls do Orange and Red have between them.
A. 3
B. 0
C. 1
D. 2
Answer: C

Q10. In a class, seven students are given different ranks such that the one who got the highest marks was ranked highest i,e. rank 1 and the one who got lowest was ranked lowest. Number of students ranked higher that Q is same as that ranked lower than S. K's marks are less than J's. S is ranked just higher than J. D's marks are lower than T but more thaQ, who is ranked higher than S. N's marks are more than J. What is N's rank?
A. 4th
B. 3rd
C. 5th
D. 2nd
Answer: B

Q11. P, Q, R, S, T, U, V, W and X are nine industries. R is 2km to the east of Q. P is 1km to the north of Q and W is 2km to the south of P, V is 1km to the west of W, while S is 3km to the east of V. U is 2km to the north of V. X is situated exactly between Q and R while T is exactly between W and S.

What is the distance between P and U?
A. 1.41 km
B. 3 km
C. 2 km
D. 1 km
Answer: D

Q12. Raman is planning to get married and he has decided following criteria for the selection of his life partner.

a) Girl must be a working professional
b) Girl must be a graduate
c) Girl's home state must be Bihar
d) If a girl's profile fulfills all the criteria except (a) but girl has completed her MBA, he will need permission from his father.
e) If a girl's profile fulfills all the criteria except (c) but she is from either UP or MP, he will need permission from his mother.

Reshma's profile is there on matrimonial site. She is a graduate and working in a logistics company earning 8LPA. Her home state is UP and she is Brahmin in caste.

Which of the following options below is CORRECT for the selection of profile mentioned above?

A. He will select the above profile
B. He will need permission of his mother
C. He will need permission of his father
D. He will not select the above profile
Answer: B

Q13. Two statements are followed by two conclusions numbered I and II. You have to consider these statements to be TRUE, even if they seem to be at variance with commonly known facts. Decide which of the given conclusions logically follow/s from the given statement.

Statements:
All liquids are water.
Some solid are liquids.

Conclusions:
I. Some water is solid.
II. Some water is not liquids.

A. If only II follows
B. If either I or II follows
C. If only I follows
D. If neither I not
Answer: C

Q14. A statement is followed by four courses of action numbered I, II, III and IV Assuming everything in the statement to be TRUE, decide which of the suggested courses of action (a decision to be taken for follow up /improvement in regard to the problem) logically follow(s) for pursuing.

Statement
The voters in a panchayat in an assembly constituency in India said that they would not vote in the coming general election.

Courses of Action

1. The election commission should be approached to issue orders so that all the voters of any panchayat cannot boycott voting in the general election.
2. The present MLA should cut down on the privileges given to the people of this panchayat so that they would refrain from boycotting the election process.
3. The elected representatives should listen to their grievances and settle any anomalies at the earliest.
4. The government should announce incentives for those voters in this panchayat, who would participate in the voting process.

A. Only I follow
B. Only III follows
C. Only II and III follow
D. Only I, III and II follow
Answer: B

Q15. A statement is followed by two assumptions numbered I and II. Consider the statement and decide which of the given assumption(s) is/are implicit in the statement.

Statement
In spite of normal demand-supply conditions, company X is reducing the price of sugar this year.

Assumptions
I. Other companies are also reducing the price
II. Quality of sugar this year by company X is not too good to put high price

A. Only assumption II is implicit
B. Both I and II are implicit
C. Neither I nor II is implicit
D. Only assumption I is implicit
Answer: D

Q16. A statement is followed by two arguments numbered I and II. Decide which of the argument(s) is/are strong (important and directly related to the question) and which is/are important and not related to the central message of the question).

Statement:
Should Naya Pradesh be divided into small states?

Arguments:
I. Yes. It is a hugely populated state and so it is difficult to manage a state with such a large population.
II. No. Current state government is trying to rule at its best.

A. Both I and II are strong
B. Only argument I is strong
C. Neither I nor II is strong
D. Only argument II is strong
Answer: B

Q17. Given below are four sets of statements numbered I, II, III and IV. Each set has three statements. Select the set or sets in which the third statement follows as a possibility.

Sets of statements:
I. Some plants are trees. Some trees are shrubs. Some shrubs are not plants.
II. Some windows are outlets. All outlets are doors. Some doors are not windows.
III. No mango is vegetable. All vegetables are eatables. Some eatables being mangoes is possible.
IV. All lions are forest animals. A few forest animals are pets. It is possible that some lions are pets.

A. Only I and III
B. Only II and IV
C. Only III and IV
D. Only II, III and IV
Answer: C

Q18. The production by a company 'xyz' in the year 1997 was double than that in the year 1995 where the production in 1995 was 30000. The production in the year 1996, 1888, 1999 and 2000 were 46000, 70000, 50000 and 80000 respectively.

For how many years was the production more than the average production of the given years?
A. 1
B. 3
C. 2
D. 4
Answer: B

Q19. Maxwell car manufacturing company produced 540, 360, 480 and 630 cars and sold 480, 380, 490 and 600 cars in January, February, March and April 2021 respectively. Johnson car manufacturing company produced 460, 320, 540 and 580 cars and sold 420, 350, 510 and 600 cars in January, February, March and April 2021 respectively. During this 4-month period, the selling price of each car was Rs. 5 lakh by the Maxwell company and Rs. 8 lakh by the Johnson company. But if a buyer purchased a car which was not manufactured in the same month, the buyer got a discount of 10% by Maxwell company and 25% by Johnson company. Both the companies adopted a principle that the cars of the previous month must be sold before the cars of the current month are sold.

What was the revenue earned from selling cars by the Johnson company only in the month of April 2021?
A. Rs. 4720 lakh
B. Rs. 4870 lakh
C. Rs. 4060 lakh
D. Rs. 3360 lakh
Answer: A

Q20. The management of a school decided to renovate the school. The school is located in a ground of dimensions 600m x 250m. The school has ten classrooms each of dimensions 10m x 6m. There are three more rooms -one for the principal, one for the office and the third for the staff. The school has a playground of dimensions 180m x 150m. The principal's room has dimensions of 8m x 6m, the office has dimensions of 8m x 6m and the staff room has dimensions of 12m x 6m. All the classrooms have to be done stone following. The office and the staff room are to be done wooden flooring while the principal room is to be done marble flooring. The height of all the rooms is 2.5m. The cost of marble flooring is Rs. 280 per sqm, the cost of wooden flooring is Rs.160 per sqm and the cost of stone flooring is Rs. 60 per sqm.

What is the difference between the cost of flooring of the principals room and the cost of flooring of the staff room?

A. Rs. 1,920
B. Rs. 1,560
C. Rs. 1,780
D. Rs. 2,140
Answer: A

Q21. In the following diagram, the shape indicates different categories of persons and the numbers in different segments show the number of persons.
How many women MBAs are either corporate managers or hardworking but not both?

A. 18
B. 13
C. 15
D. 16
Answer: A

TCS Ninja Programming Logic Questions

Q1. When we traverse the binary search tree in inorder we get the output in which order?
A. Increasing order
B. Random order
C. Decreasing order
D. Linear order
Answer: A

Q2. Which of following SDLC model is used in Risk handling in software development process?
A. Spiral model
B. Waterfall model
C. Prototype model
D. Iterative model
Answer: A

Q3. What is the output of the below code?

```
#include <stdio.h>

int main()
{
    int digit=8;
            printf("%d",digit<<1);
    return 0;
}
```

A. 8
B. -18
C. -8
D. 16
Answer: D

Q4. What will be the output of the following code?
```
#include<iostream>
using namespace std;
class Food
{
    private:
    string food;
    public:
    void orderFood (string food)
    {
```

```
            this->food = food;
    }
    void myFood() { cout<< food <<endl;}
};

int main()
{
    Food name;
    string food = "pizza";
    string* fastfood = &food;
name.orderFood(*fastfood);
name.myFood();
    return 0;
}
```

Answer: pizza

Q5. What is the output of the below code?

```
#include <iostream>
using namespace std;
int main()
{
    long nbr=21889, c=0;
    c = (nbr == 0) ? 1 : (21889^1);
cout<<c;
    return 0;
}
```

Answer: 21888

Q6. What is the element of the stack once all the elements listed below are pushed onto?

First Element -> {4,2,1,4,5,3,7,8} ->Last Element

Further operations ->
Pop, Pop, Push (3)

A. 3
B. 7
C. 4
D. 1
Answer: 3

Q7. What is output of the following code?

```
#include(stdio.h>
int main()
{
int x=1,y=1;
if(y<0) if(y>0) x=3;
else x=5;
printf("%d", x);
return 0;
}
```
A. true
B. 0
C. false
D. 1
Answer: 1

Q8. What is the output of the following code?

```
#include<stdio.h>
int main()
{    int x,y,z;
x=03;y=02;z=01;
printf("%d", x | y & z);
return 0;
}
```
A. 10
B. 11
C. 3
D. 01
Answer: 3

Q9. What is output of the following pseudocode?
```
FUNCTION funn()
INTEGER x,y,z;
x=7; y=4; z=2;
x=x && y || z;
PRINT,x;
END FUNCTION
```

A. False
B. 0
C. True
D. 1
Answer: 1

TCS Ninja Hands-on Coding Questions

Q1. A party has been organised on a cruise. The party is organised for a limited time(T). The number of guests entering (E[i]) and leaving (L[i]) the party at every hour is represented as elements of the array. The task is to find the maximum number of guests present on the cruise at any given instance within T hours.

Example 1:

Input:

5   ---> Value of T

[7,0,5,1,3] ---> E[], element of E[0] to E[N-1], where input each element is separated by new line

[1,2,1,3,4] -----> L[],element of L[0] to L[N-1], where input each element is separated by new line

 Output:

8 ----->   Maximum number of guests on cruise at an instance.

Explanation:

1st hour

Entry: 7, Exit: 1

No. of guests on the ship: 6

2nd hour:

1st hour

Entry: 0, Exit: 2

No. of guests on the ship: 6 -2 = 4

Hour 3:

Entry: 5, Exit: 1

No. of guests on the ship: 4 + 5 -1 = 8

Hour 4:

Entry: 1, Exit: 3

No. of guests on the ship: 8 + 1 - 3 = 6

Hour 5:

Entry: 3, Exit: 4

No. of guests on the ship: 6 + 3 - 4 = 5

Hence, Maximum Number of guests within 5 hours is 8.

Code Solution:

```cpp
#include<iostream>
using namespace std;
int main()
{
    int n, sum = 0, max;
    cin >> n;
    int a[n], b[n];
    for(int i = 0; i < n; i++)
    {
        cin >> a[i];
    }
    for(int i = 0; i < n; i++)
    {
        cin >> b[i];
    }
    max = sum;
    for(int i = 0; i < n; i++)
    {
        sum = sum + a[i] - b[i];
        if(max < sum)
            max = sum;
    }
    cout << max;
}
```

Q2. Given an array Arr[] of size T, contains binary digits.
Where
0 represents a biker running to the north.
1 represents a biker running to the south.

The task is to count crossing bikers in such a way that each pair of crossing bikers (N, S), where 0<=N<S<T, is passing when N is running to the north and S is running to the south.

Constraints:

<=N<S<T

Example -1:

Input:

5. -> Number of elements i.e. T
0. -> Value of 1st element
1. -> Value of 2nd element
0. -> Value of 3rd element
1. -> Value of 4th element
1. -> Value of 5th element

Output:

5

Explanation:

The 5 pairs are (Arr[0], Arr[1]), (Arr[0], Arr[3]), (Arr[0], Arr[4]), (Arr[2], Arr[3]) and (Arr[2], Arr[4]).

Note that in all pairs first element is 0, second element is 1 and index of first element is smaller than index of second element.

The Input format for testing:

First input line: Accept a single positive integer value for T representing the size of Arr[].
Second input line:: Accept N number of integer values (0 or 1) separated by a new line.

Output Format for Testing:

The output must be a non-negative integer number only (See the output format in example).
Additional messages in the output will result in the failure of test cases.

Code Solution

```cpp
#include <iostream>
using namespace std;
int main()
{
    int n, count=0;
```

```cpp
cin>>n;
int B[n];
for(int i=0; i<n; i++)
    cin>>B[i];
for(int i=0; i<n; i++)
{
    if(B[i]==0)
      {
          for(int k=i+1; k<n; k++)
          {
              if(B[k]==1)
                  count++;
          }
      }
}
cout<<count;
}
```

FACE Prep