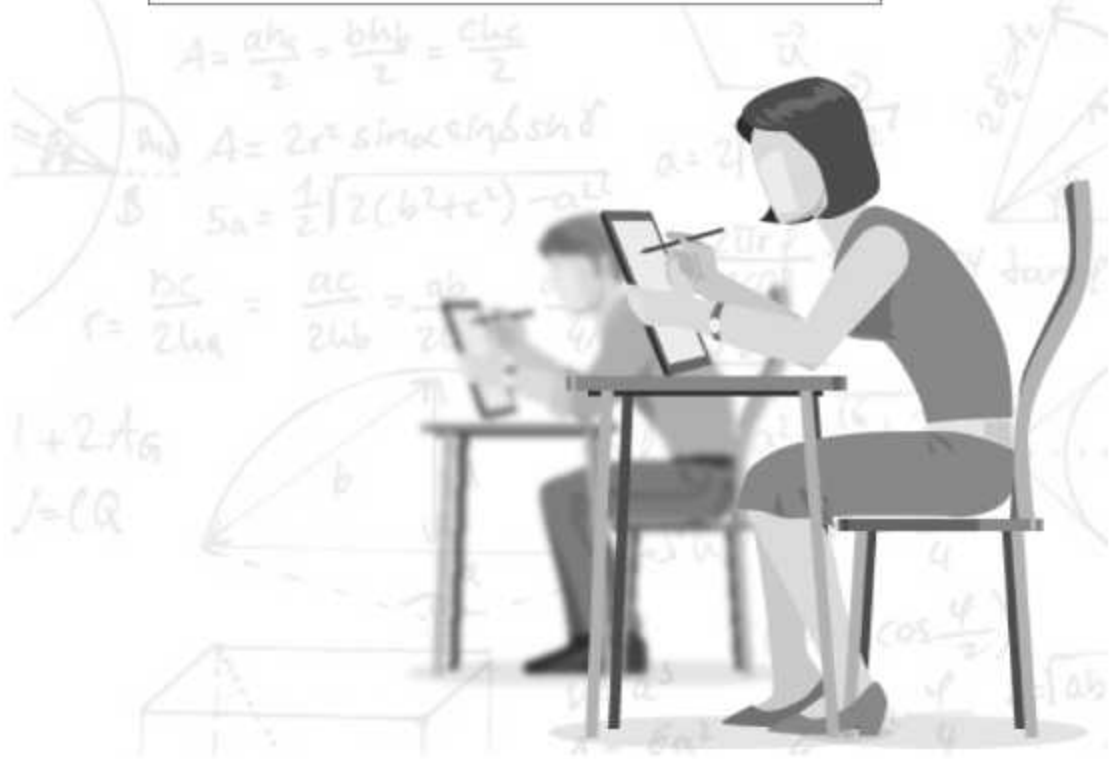


TCS NQT UPDATES

All TCS NQT 2020 Exam Related Updates/Questions shared by students will be updated in this document.

Last updated on: 3rd Aug 2019, 11 AM



Pattern update:

Here is the confirmed pattern of the TCS NQT, as per information from test-takers of slot 1.

English - 15 Qs in 10 minutes - Cloze passage, vocabulary-based questions on passages, inferential based questions on passages

Quantitative Aptitude - 15 Qs in 30 minutes

Advanced Programming Logic - 10 Qs in 20 minutes – Questions from C, C++, Java

Coding - 1 Q in 30 minutes

1. No advanced sub-sections
2. On-screen calculator available
3. Negative marking applicable for MCQ questions
4. FUB (Fill up the blank) questions were also present

English

SLOT 1 –

PASSAGE: In the game of cricket, any side with a pair of bowlers of complementing superior qualities prove invincible. The current generation would know Bhuvn, Bumrah or Starc-Cummins pairs better than their own parents. So, let me dissect a pair that ruled the cricketing world during the fifties and early sixties. Brian Statham and Fred Trueman of England proved to be a lethal combination that every batsman wanted to avoid playing. Stantham was a bowler of immaculate accuracy, nagging length and lyrical run-up. Oxymoronically, his virtues were the basis for his misfortunes. Knowing that he would bowl in a manner that's unplayable, batsmen were more smug in defending his balls than when playing an erratic bowler.

Trueman nicknamed as Fiery had a long delivery stride and made no bones about his intentions to test batsman's physical and mental strength. The ball would flash past the bat in moments of incredibility with the batsman thanking his Maker, if the ball missed his limbs and occasionally the stumps.

1. Which one of the following sentences has an appropriate bold part that can be replaced with lethal?
 - a. The series of never-ending bubbles rejoiced the children to any end

- b. The never-say-die team won the tournament for the tenth time.
- c. "Mount vesuvius" eruption proved to be completely ruinous to pompeii
- d. The life-saving drug administered to the patient brought him back to his elements.

Answer: C

2. Any team with two bowlers sharing the required traits is:

- a. Arrogant to its opponents
- b. vulnerable to choke
- c. hard to defeat
- d. insignificant in its contribution.

Answer: C

3. Oxymoron is a special language device, where

- a. A tough idea is simplified by bringing a simple parallel to it
- b. Two contrasting elements are placed side by side reinforcing an idea
- c. A brilliant object issued in place of a dull entrance
- d. An abstract entity is compared to an exact entity emphasising similarity/difference

Answer: B

Cloze passage:

Digital twin in automotive industry presents an opportunity to pair virtual and physical worlds leveraging different technologies such as IoT, big data analytics, and simulation techniques to re-engineer critical processes as below.

Vehicle development: Integrates data across the product lifecycle to enable data-driven vehicle concept, informed design through rapid assessment of change impacts and early detection of issues, and accurate and accelerated design verification.

Vehicle manufacturing: Factory's digital twin in manufacturing enables real time data gathering from machine sensors, facilitating flexible cell manufacturing, IoT-driven maintenance strategies, and leveraging beacon data to ensure workers' safety.

Vehicle sales and service: Captures real-time field insights on driver preferences, product features' uptake, vehicle performance, and service history to create an interactive user experience on the sales floor and enable proactive and predictive after-sales service.

Quantitative Aptitude –**SLOT 1 –**

1. In a country, 60% of the male citizen and 70% of the female citizen are eligible to vote. 70% of the male citizens eligible to vote voted, and 60% of female citizens eligible to vote voted. What fraction of the citizens voted during the election?

- a. 0.49
- b. 0.42
- c. 0.48
- d. 0.54

Ans: 0.42

2. A lady had some socks and hats in her closet - 17 blue, 47 red, and 24 yellow. The light are out and it is totally dark. In spite of the darkness, she can make out the difference between a hat and sock. She takes out an items out of the closet only if she is sure that it is a sock. How many socks must she take out to make sure she has two socks of each colour?

- a. 73
- b. 64
- c. 57
- d. 55

Ans: 73

3. In function $P(x,y) = 85x - (50y + 150000)$. What value indicates the increase in P that corresponds to increase in x, when y is kept a constant?

- a. 85
- b. 135
- c. 35
- d. 50

Ans: 85

4. A clock is started at noon. By 10 minutes past 5, the hour hand has turned through.

- a. 155 degree
- b. 145 degree
- c. 160 degree
- d. 150 degree

Ans: 155 degree

5. Ram Speaks truth 40% of the time and Laxman speaks truth 60% of the time. Percentage of cases Ram and Laxman are likely to contradict each other in stating the same fact is_____:

Answer: 52%

6. Dimensional analysis plays an important and useful role in physics. Mass is denoted by M, length by L and time by T. So, momentum of a particle, which is a product of its mass and velocity has a dimension of MLT(velocity is distance/time which is length/time). In a given physical education, the left hand side and right hand side must have the same dimensions.

Kinematic viscosity (ν) of a fluid is a measure of its resistive flow under gravity's influence. It's given by the equation.

$\nu = \eta / \rho$ where

η is dynamic viscosity; its dimension is Force Time / Area

ρ is density (mass/volume)

What's the dimension of kinematic viscosity?

- a. $L^{-2}T^{-2}$
- b. $L^{-2}T$
- c. LT^{-2}
- d. L^2T^{-1}

Answer: L^2T^{-1}

7. In function $P(x,y) = 85x - (50y + 150000)$. What value indicates the increase in P that corresponds to an increase in x, when y is kept constant?

- a. 85
- b. 135
- c. 24
- d. 50

Answer: 85

8. Uma has 50 red and 50 blue balls. She has two bowls with her. She has to distribute the balls in these two bowls in such a way that none of the bowls are left empty. If one were to choose one of the two bowls at random and then randomly draw a ball from it, the probability of the ball being red is maximized. After this distribution, there will be a total of _____ balls in the bowl with a larger number of balls.

Answer: 99

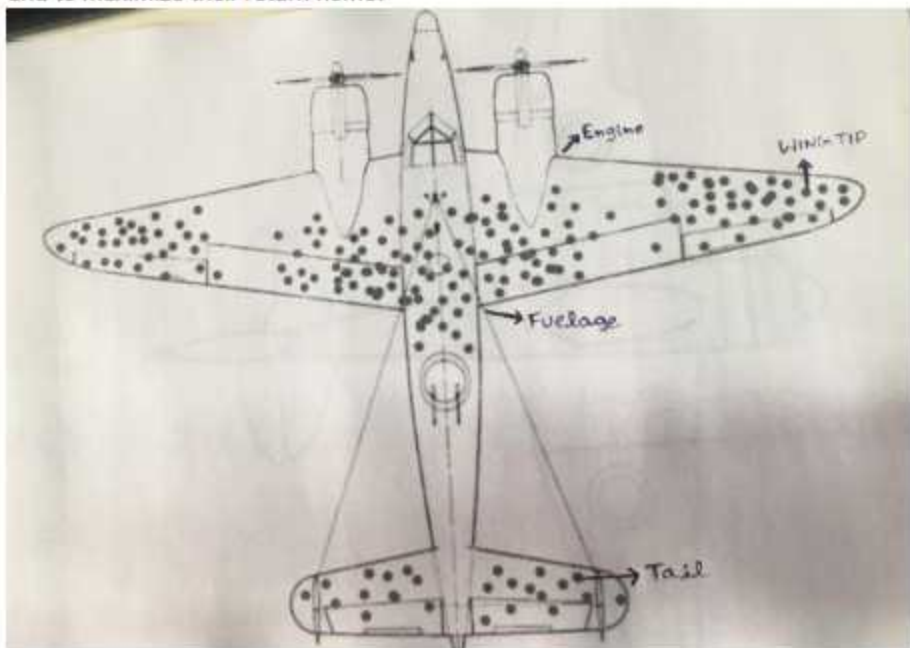
9. Bhaskar called his friend Shakuntala to celebrate his wedding anniversary. Shakuntala reached the street where he was living but forgot the door number. She called baskar for his door number. Being a geek in Maths he didn't give the door number directly. But told this " It is the middle number of the three numbers where the difference between first and second numbers is same as that between second and third. The product of first and last is 273 and sum of all three is 51." Shakuntala reached his house on time. His door number is?

Ans: 17

10. A Volvo bus from Chennai to Bangalore has 5 stops in between. At each stop half of the people will get down. After reaching Bangalore there are only 2 people left out. How many people are there in the bus at starting?

Answer: 64

11. The figure below depicts the damage done to aircrafts that had returned their base from missions in World war 2. The bullet holes per square foot in the Tail, Wingtips, Fuselage, and Engine are 1.1, 1.5, 1.8, and 0.2 respectively. Where does the airforce need to primarily reinforce the aircraft to minimize losses to enemy fire and to maximize their return home?



Answer: Engine

12. There is a horse and a saddle. The sum of their cost is Rs.1100 the cost of the horse is Rs.1000 greater than saddle. What is the cost of saddle?

Answer: Rs. 50

Programming Logic –

SLOT 1 –

1. What is the output of the following Java program?

```
Class Super
{
    Static String greeting() {return "Goodnight";}
    String name() {return "Ram";}
}
Class Sub extends Super
{
    Static String greeting () {return "Hello";}
    String name() {return "Bheem";}
}
Public class Test
{
    Public static void main (String[] args)
    {
        Super s=new Sub();
        System.outprintln(s.greeting()+" "+s.name());
    }
}
```

Answer: Good night Bheem

2. What is the value of result in the following C Program?

```
Int a=17, b=5, flag=1, result;
int x=abs(a),int y=abs(b);
for(result=0;x>y;result++)
x=y;
if((a>=0&&b<0)||((a<0&&b>=0))
flag=1;
result*=flag;
```

Answer: 3

3. The function `pallap()` defined below takes a string as an argument and returns a boolean value.

```
bool pallap(string pinput)
{
    ispal = true
    i = 0
    j = length(pinput) - 1
    While (i < j)
    {
        If (pinput[i] != pinput[j])
        {
            ispal = false
        }
        i = i + 1
        j = j - 1
    }
    return ispal
}
```

In the above function `!=` indicates "is not equal to".

If `redder = pallap("redder)`, `stressed = pallap("stressed = pallap("stressed")` and `party_trap = pallap("party_trap")` then

Answer: Redder is true stressed is false party_trap is false

```
4. #include<algorithm>
using namespace std;
class SubFunction
{
public:
    bool operator()(const string & a, const string & b) {return a>b;}
};
int main ()
{
    vector <string> v={"abc","def","ghi","jkl","mno","pqr","stu","vw","yz"};
    sort(begin(v),end(v),SubFunction());
    copy(begin(v),end(v),ostream_iterator<string>(cout,"\\n"));
}
```

Answer:

yz
vw

stu
pqr
mno
jkl
ghi
def
abc

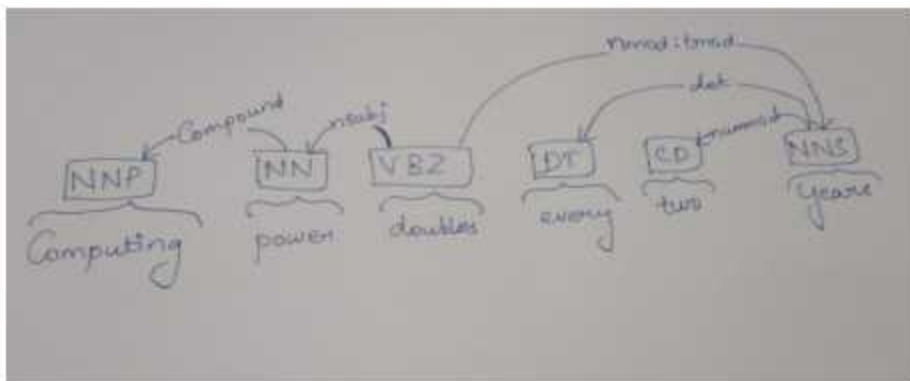
5. What is the value of minimum, if the following segment runs to completion?

```
#include<limits.h>
int main()
{
    int i=0, minimum = INT_MIN;
    int number[] = {23, 48, 98, 1, 6, 8, 200, 10};
    while (i < sizeof(numbers)/sizeof(numbers[0])) {
        if(minimum > numbers[i]) minimum = numbers[i]; i++;
    }
}
```

Answer: Minimum value is INT_MIN = -2147483647

6. The picture represents a parse tree generated according to a specified grammar for the following sentence.

"Computing power doubles every two years"



How many leaf nodes are there for this tree?

- a. 4
- b. 3
- c. 2

d. 5

Answer is 4,

7. What is the fourth line of output in the following C++ programme?

```
#include<vector>
#include<iterator>
#include<iostream>
#include<algorithm>
using namespace std;
Class SubFunction
{
public:
    bool operator()(const string &a, const string &b) {return a>b;}
};
int main()
{
    vector<string> v = {"abc", "def", "ghi", "jkl", "mno", "pqr", "stu", "vwx", "yz"};
    sort(begin(v), end(v), SubFunction());
    copy(begin(v), end(v), ostream_iterator<string>(cout, "\n"));
}
```

Answer: fourth line of the output is pqr

8.

```
{
    // In the following initialization sequence, English character 'O' is not used
    String s[] = {"1234", "56789", "234a", "189b1", "089*3"};
    for (int i = 0; i < sizeof(s)/sizeof(s[0]); i++){
        auto pos = s[i].find_first_not_of("0123456789"); // 0 is numerical zero
        If (s[i].length() == 4 && pos == string::npos) continue;
        else cout << "Invalid guess!\n";
    }
}
```

Answer:

Invalid Guess!
Invalid Guess!
Invalid Guess!
Invalid Guess!

Coding

SLOT 1 –

NOTE: Once you have selected your programming language, click on the checkbox beside it to start coding.

Word is key

Problem statement

One programming language has the following keywords that cannot be used as identifiers:

break, case, continue, default, defer else, for, func, goto, if, map, range, return, struct, type, var

Write a program to find if the given word is a keyword or not

Example-1

Input

defer

Expected Output

defer is a keyword

Example-2

Input

While

Expected Output

while is not a keyword

Correct code using C-

```
#include<stdio.h>
```

```
#include<string.h>
```

```
int main()
```

```
{
```

```
    char
```

```
str[16][10]={"break","case","continue","default","defer","else","for","func","goto","if",  
,"map","range","return","struct","type","var"};
```

```
char input[1][20];

int flag = 0;

scanf("%s",input);

for(int i = 0;i<strlen(str);i++)

{

    if(strcmp(input,str[i])==0)

    {

        flag = 1;

        break;

    }

}

if(flag == 1)

{

    printf("%s is a keyword",input);

}

else

{

    printf("%s is not a keyword",input);

}

}
```

Correct code using Java –

```
import java.util.Scanner;
```

```
public class Ex1 {
public static void main(String[] args) {
    String[]
a={"break","case","continue","default","defer","else","for","func","goto","if","map","r
ange","return","struct","type","var"};
    String b;int flag=0;
```

```
Scanner s=new Scanner(System.in);
b=s.next();
for(int i=0;i<10;i++)
{
    if(a[i].equalsIgnoreCase(b))
    {
        flag=1;
    }
}
if(flag==1)
{
    System.out.println(b+" is a keyword");
}
else{
    System.out.println(b+" is not a keyword");
}
}
}
```

Correct code using Python –

```
keyword={"if","else","break","case","goto","continue","return","range"}
inp = input()
if inp in keyword:
    print("Given string is keyword")
else:
    print("not a keyword")
```