TCS DIGITAL SLOT ANALYSIS

07-AUGUST-2021

The second slot of the TCS Digital exam (2022 pass-outs hiring from TCS accredited campuses) happened on **7th Aug 2021** from **1 to 3 pm**. This document details the **Slot Analysis** as well as **Answers to Questions** that students recollected post the test.

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 question 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 Digital Test.

Contents

TCS Digital Test Pattern

Below table contains TCS Digital Pattern.

Section Order	Section Name	#Qs	Duration (In Minutes)
1	Verbal Ability	15	10
2	Advanced Quantitative Aptitude	15	40
3	Advanced Coding	2	60

TCS Digital Assessment Platform

Here is a detailed table about the TCS Digital Assessment Platform.

Assessment Platform	Inter-sectional Navigation	Intra-sectional Navigation	Marking Scheme
TCS - iON	Not Allowed	Allowed	• 2 Marks for correct MCQ response • -0.67 Mark for incorrect MCQ response

TCS Digital Syllabus

Here is a detailed table about the TCS Digital Syllabus.

Section	Topics
Verbal Ability	• Reading Comprehension • Para-jumbles • Vocabulary (Synonyms, Antonyms) • Sentence Correction • Sentence Improvement • Sentence Completion
Advanced Quantitative Aptitude	• Profit and Loss • Time and Work • Partnership • Ratio and Proportion • Averages • Simple and Compound Interest • Number System (Divisibility, Remainders and Factors) • Time Speed and Distance • Data Interpretation • Permutations and Combinations • Simplification

Advanced Coding	• Looping • Decision Making • Functions • Arrays • Strings • Data Structures • Algorithms • Math-based

TCS Digital Slot Analysis

- There was **100% topic repetition** from the syllabus trained by FACE Prep in its TCS Digital training programme.
- Difficulty level of Verbal Ability questions ranged from easy to moderate.
- Difficulty level of Advanced Quantitative Aptitude questions ranged from moderate to high.
- Most of the questions in Advanced Quantitative Aptitude were from Time and Work, Data Interpretation, Simple and Compound Interest.
- Advanced Coding section had two subsections carrying one question in each.
- The first coding Qs was easy, while the second one was moderately challenging.
- One coding question from the 9-11 am slot got repeated.
- Overall Test Difficulty level settles around MODERATE

TCS Digital Questions with Answers

Verbal Ability

Q1. Select the option that gives the most appropriate meaning of the underlined word.

The **affordances** that social media have in organizational contexts cannot be undetermined.

A. liabilities
B. possibilities
C. qualities
D. features

Answer: Option C

Q2. The following paragraph contains four sentences, three of which are grammatically incorrect and only one is correct. From the given options, select the sentence that is grammatically correct.

When Jamshedji Tata started a trading firm from 1868, few could have predicted that he would one day be called the Father of Indian Industry. Born in Navsari, Gujarat, Jamshedji moved to Bombay, Now Mumbai, in the age of fourteen and joined his father's trading firm. Fifteen years later, he branched out on his own and built a reputation on acquiring and turning around sick mills. Jamshedji also put in place pioneering labour practices, long before any labour laws came into existence.

A. Born in Navsari, Gujarat, Jamshedji moved to Bombay, now Mumbai, in the age of fourteen and joined his father's trading firm.
B. Jamshedji also put in place pioneering labour practices, long before any labour laws came in existence.
C. When Jamshedji Tata started a trading firm from 1868, few could have predicted that he would one day be called the Father of Indian Industry.
D. Fifteen years later, he branched out on his own and built a reputation on acquiring and turning around sick mills.

Answer: Option D

Q3. Read the passage below and answer the question that follows.
In the years since the Cold War and collapse of the Soviet Union, the two countries have worked to set beside their differences, but tension still simmers beneath the surface. Russia was still viewed by many Americans as remote, mysterious, and even dangerous. Similarly, the Russians harbour both admiration and contempt for America's economic prowess and superpower status.

Which of the statements below can be inferred from the passage?

A. Russia and America have worked out their differences.
B. Russians hate Americans more than Americans hate Russians.
C. Russia and America do not trust each other.
D. The collapse of the Soviet Union has made the two countries enemies.

Answer: Option C

Q4. The following sentences are jumbled. Please re-arrange them in the right order.

1. If we harness the process, we could naturally modify crops and make them more resistant to the effects of climate change.
2. A recent study shows that lateral gene transfer is widespread in grasses, including many food crops.
3. While we do not fully know how genes move between species, we could benefit from mimicking the transfer between species.
4. The research shows that genes can freely move between grass species regardless of how closely related they are.

A. 2,1,3,4
B. 3,1,4,2
C. 2,4,3,1
D. 3,2,4,1

Answer: Option C

Q5. Select the most appropriate ANTONYM of the given word.

Erratic

A. Invariant
B. Concurrent
C. Sporadic
D. Consistent

Answer: Option D

Q6. Select the most appropriate option that best substitutes the underlined word.

Whenever we talk about a school, teachers, students and their parents are described as the most important group of people who are involved with the organization towards it and have an interest in its success.

A. placeholders
B. beholders
C. upholders
D. stakeholders

Answer: Option D

Q7: Please read the passage and answer questions that follow.

No Ecosystem more important in mitigating the effects of climate change than tropical rainforest. And South-East Asia is home to the world's third-biggest patch of it, behind the Amazon and Congo basins.

Even though humans release carbon from these forests through logging, clear-felling for agriculture and other disruptions, some are so vast and fecund that the growth of the plants within them absorbs even more from the atmosphere. The Congo basin, for instance, locks up 600m tonnes of carbon a year more than it releases, according to the World Resources Institute (WRI), an international NGO that is equivalent to about a third of emissions from all American transport. The Amazon, too, remains a net absorber (though four years of massive fires and clearing for cattle have brought it to a tipping-point). In contrast, such is the extent of clearing for plantations in South-East Asia's rainforests, which run from Myanmar to Indonesia, that over the past 20 years they have turned from a growing carbon sink to a significant source of emissions—nearly 500m tonnes a year. Indonesia and Malaysia, home to the biggest expanses of pristine forest, have lost more than a third of it this century. Cambodia, Laos and Myanmar, relative newcomers to deforestation, are making up for lost time.

Which of the following statements is NOT TRUE as per the passage?

A. Climate changes mitigate the effects of tropical rainforests.
B. Our planet requires more carbon sinks than sources of carbon emission.
C. Emissions from all American countries exceed 500 m tonnes of carbon a year.
D. The world is not against agriculture per se, but against deforestation at large.

Answer: Option C

Advanced Quantitative Aptitude

Q1. The average of 19 numbers is 42. The average of the first 6 numbers is 38.5 and that of the last 14 numbers is 45.5. If the sixth number is excluded then what's the average of the remaining numbers?(Correct to one decimal Place)

A. 41.2
B. 41.6
C. 40.8
D. 40.4

Answer: Option D

Q2. A shopkeeper bought a lamp at Rs.1,200 and the ratio of its cost price and marked price was 3:5. It was sold after two successive discounts of 30% and 18% and incurred a loss or profit of x%. Find x.

A. 4 ⅔ profit
B. 4 ⅓ loss
C. 4 ⅔ loss
D. 4 ⅓ profit

Answer: Option B

Q3. The numbers 4121, 4973 and 6464 leave the same remainder x in each case when divided by the greatest number y. the value of (2y-x) is;

A.
B. 432
C. 336
D. 352

Answer: Option D

Q4. A divided money between two sons B and C. The amount received by B after 13 years is equal to the amount received by C in 15 years at the rate of 4% p.a. compound interest. The difference between their shares is INR 102. Find the amount in total (in INR).

A. 2702
B. 2602
C. 1352
D. 1250

Answer: Option B

Q5. The number of ways of choosing (x+8) balls out of 36 balls is equal to choosing x balls out of 36 balls. Find the number of ways of choosing (x+5) balls out of 25 balls.

A. 1,741,00
B. 1,69,900
C. 1,77,100
D. 1,70,000

Answer: Option C

Q6. A fraction becomes 2 / 3 if 1 is added to its numerator and 2 is added to its denominator . If 2 is subtracted from the numerator and 5 is added to its denominator, the fraction becomes 1 / 4, If 3 is added to the numerator and 1 is subtracted from the denominator, then fraction becomes:

A. 3 / 4
B. 6 / 5
C. 4 / 3
D. 5 / 7

Answer: Option C

Qs 8 to 10: Study the given information and answer the question.
In a company, there are 1,300 employees. The company has give departments: HR, Finance, Marketing, Administration and Manufacturing. Out of the total female employees in the company, 32% work in the HR department, 20% in the Finance department and 18% in the Marketing department. The remaining 180 female employees work in the Administration department. There are no female employees in the Manufacturing department.

Out of the total male employees in the company, 15% work in the HR department, 27% in Marketing, 25% in Finance, 20% in Administration. The remaining male employees work in the Manufacturing department.

Q8. What is the average number of employees (male and female) who work in the Marketing, Finance and Administration departments?

A. 312
B. 301
C. 308
D. 304

Answer: Option D

Q9. The total number of male employees working in the HR and Finance departments is what percentage of the total number of female employees working in the HR, Marketing and Administration departments (nearest integer)?

A. 60%
B. 54%
C. 56%
D. 58%

Answer: Option D

Q10. If the number of female employees in HR increases by 25%, the number of female employees in the Finance department increases by 15%, and 48 female employees leave the Administration department, then what is the total number of female employees in the company will increase by:

A. 18
B. 16
C. 12

D. 15

Answer: Option A

Q11. If 17 male employees from the Marketing department are transferred to the Manufacturing department and 20 female employees from the Administration department are transferred to the HR department, then the number of employees in the Marketing department is what percentages less than the number of employees in the Administration department?

A. 8 ⅓%
B. 5 ½ %
C. 6 ⅔ %
D. 6 ¼ %

Answer: Option C

Q12. A certain sum was invested at 20% p.a. for a year such that the interest was compounded half yearly for the first year and compounded yearly for the next year. If get on the sum was Rs.10,170 then the sum (in Rs) was:

A. 25,000
B. 24,500
C. 24,000
D. 22,500

Answer: Option D

Q13. Arun borrowed a certain sum at the rate of 8% for the first three years, at the rate of 9 ½% p.a. for the next 4 years and at the ratio of 15% for the period beyond 7 years. If he pays a total simple interest Rs.8,015 at the end of 10 ½% years, the sum (in Rs) was:

A. 7,000
B. 7,500
C. 7,200
D. 6,500

Answer: Option A

Q14. 15 men and 20 boys can complete a work in 15 days, 20 men and 35 boys can complete the same work in 10 days. Determine the efficiency of boys with respect to men.

A. 1.5 : 1
B. 2 : 1
C. 1 : 2
D. 1 : 1.5

Answer: Option C

Q15. A and B are coming from opposite directions. A starts at 10 a.m. towards B. B starts at 11 a.m. towards A. The speed of A and B are 40 km/hr and 50 km/hr, respectively. At what time will they meet each other, if A and B are 100 km apart?

A. 11.50 a.m.
B. 12.00 p.m.
C. 11.40 a.m.
D. 10.40 a.m.

Answer: Option C

Advanced Coding

Q1. Given an array Arr[] of N integer numbers. The task is to rewrite the array by putting all multiples of 10 at the end of the given array.

Note: The order of the numbers which are not multiples of 10 should remain unaltered, and similarly, the order of all multiples of 10 should be unaltered.

For e.g.

Suppose N = 9 and Arr[]={10, 12, 5, 40, 30, 7, 50, 9, 10}

You have to push all multiple of 10 at the end of the Arr[]

Hence, the output is 12 5 7 9 10 40 30 50 10.

Input	Output
9 .... Value of N 10 12 5 40 30 7 50 9 10 ... Elements of Arr[]	12 5 7 9 10 40 30 50 10
9 ..... Value of N 100 21 5 6 3 7 11 89 10.... Elements of Arr[]	21 5 6 3 7 11 89 100 10

Constraints:

1 < N < = 100

.100 < = Arr[i] < = 100

Input Format for Testing:

1. First input line: Accept a single positive integer value for N representing the size of Arr[].
2. Second Input line: Accept N number of integer values separated by a new line.

Output Format for Testing:

1. The output must be N integer numbers separated by a single space character (See the output format in examples).
2. Additional messages in the output will result in the failure of test cases.

Code Solution in Python

```
n = int(input())
l = list(map(int,input().split()))
m = []
n = []

for i in l:
  if i%10==0 and i!=0:
    n.append(i)
  else:
    m.append(i)

print(*m+n)
```

Code Solution in Java

```
import java.util.*;
class Main
{
public static void main (String[] args) {
    Scanner sc=new Scanner (System.in);
    int n=sc.nextInt();
    int arr[]=new int[n];
    int i;
    for(i=0;i<n;i++)
        arr[i]=sc.nextInt();
    for(i=0;i<n;i++)
       if(arr[i]%10!=0)
        System.out.printf("%d ",arr[i]);
    for(i=0;i<n;i++)
       if(arr[i]%10==0)
        System.out.printf("%d ",arr[i]);
    }
}
```

Code Solution in C++

```cpp
#include<iostream>
using namespace std;
int main()
{
    int n;
    cin>>n;
    int arr[n];
    int i;
    for(i=0;i<n;i++)
        cin>>arr[i];
    for(i=0;i<n;i++)
       if(arr[i]%10!=0)
        cout<<arr[i]<<" ";
    for(i=0;i<n;i++)
       if(arr[i]%10==0)
        cout<<arr[i]<<" ";

}
```

Code Solution in C

```c
#include <stdio.h>
int main()
{
    int n,i,a[10];
    scanf("%d",&n);
    for(i = 0; i < n;i++)
    {
      scanf("%d",&a[i]);
    }
    for(i = 0; i < n;i++)
    {
     if(a[i] %10 !=0)
     {
       printf("%d ",a[i]);
     }
    }
    for(i = 0; i < n;i++)
    {
     if(a[i] %10 ==0)
     {
       printf("%d ",a[i]);
     }
    }
    return 0;
}
```

Q2. Given an array Arr[N] of N integers and a positive integer K. The task is to divide the array into two sub-arrays from right after the Kth position and slide the left sub-array of K elements to the end.

Input	Output	Explanation
5 -- Value of N {10, 20, 30, 40, 50} -- Elements of Arr [] 2 -- Value of K	30 40 50 10 20	Arr[] = {10,20,30,40,50} and K=2 (2nd position) Divide array from after 2nd position and add left sub-array {10,20} to the end. So the output is 30 40 50 10 20
4 -- Value of N {10, 20, 30, 40} -- Elements of Arr [] 1 -- Value of K	20 30 40 10	Arr[] = {10, 20, 30, 40} and K=1 (1st position) Divide array from after 1st position and add left sub-array {10} to the end. So the output is 20 30 40 10
4 -- Value of N {10, 20, 30, 40} -- Elements of Arr[] 3 -- Value of K	40 10 20 30	Arr[] = {10, 20, 30, 40} and K=3 (3rd position) Divide array from after 3rd position and add left sub-array {10, 20, 30} to the end. So the output is 40 10 20 30

Constraints

- 1<N<=100
- -100<=Arr[i]<=100
- 1<=K<N

Code Solution in Python

```python
def rightRotateByOne(A):

    last = A[-1]
    for i in reversed(range(len(A) - 1)):
        A[i + 1] = A[i]

    A[0] = last
def rightRotate(A, k):

    for i in range(k):
        rightRotateByOne(A)
n=int(input())
A = []
for i in range(n):
    r=int(input())
    A.append(r)
k = int(input())
rightRotate(A, k)
for i in range(n):
    print(A[i],end=" ")

```

Code Solution in Java

```java
import java.util.*;
public class Main
{
public static void Rotateby(int arr[], int n)
{
      int x = arr[n - 1], i;
    for (i = n - 1; i > 0; i--)
        arr[i] = arr[i - 1];
    arr[0] = x;
}
public static void Rotate(int arr[], int d, int n)
{
    for (int i = 0; i < d; i++)
        Rotateby(arr, n);
}
public static void printArray(int arr[], int n)
{
    for (int i = 0; i < n; i++)
        System.out.printf("%d ",arr[i]);
}
public static void main(String args[])
{
    Scanner sc=new Scanner(System.in);
    int i;
    int n=sc.nextInt();
    int arr[]=new int[n];
    for(i = 0; i < n;i++)
        arr[i]=sc.nextInt();
    int k=sc.nextInt();
    Rotate(arr, k, n);
    printArray(arr, n);
}
}
```

Code Solution in C++

```cpp
#include <bits/stdc++.h>
using namespace std;
void Rotateby(int arr[], int n)
{
      int x = arr[n - 1], i;
    for (i = n - 1; i > 0; i--)
    arr[i] = arr[i - 1];
    arr[0] = x;
}
void Rotate(int arr[], int d, int n)
{
    for (int i = 0; i < d; i++)
        Rotateby(arr, n);
}
void printArray(int arr[], int n)
{
    for (int i = 0; i < n; i++)
        cout << arr[i] << " ";
}
int main()
{
    int arr[10],i;
    int n,k;
    cin>>n;
    for(i = 0; i < n;i++)
    cin>>arr[i];
    cin>>k;
    Rotate(arr, k, n);
    printArray(arr, n);

    return 0;
}
```

Code Solution in C

```c
#include<stdio.h>
void Rotateby(int arr[], int n)
{
      int x = arr[n - 1], i;
    for (i = n - 1; i > 0; i--)
        arr[i] = arr[i - 1];
    arr[0] = x;
}
void Rotate(int arr[], int d, int n)
{
    for (int i = 0; i < d; i++)
        Rotateby(arr, n);
}
void printArray(int arr[], int n)
{
    for (int i = 0; i < n; i++)
        printf("%d ",arr[i]);
}
int main()
{
    int arr[10],i;
    int n,k;
    scanf("%d",&n);
    for(i = 0; i < n;i++)
        scanf("%d",&arr[i]);
    scanf("%d",&k);
    Rotate(arr, k, n);
    printArray(arr, n);
    return 0;
}
```