TCS DIGITAL SLOT ANALYSIS

07-AUGUST-2021

TCS Digital kicked off on **07-August-2021** with the first slot happening on for the students from **9 am to 11 am**. 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 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 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
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 of the Coding Qs was easy, while the second one was moderately challenging.
- Overall Test Difficulty level settles around MODERATE

TCS Digital Questions with Answers

Verbal Ability

Q1. The prophetic quality of the soothsayers' speeches earned them a great position in the Roman empire.

A. Predictive
B. Preventive
C. Speculative
D. Punitive

Answer: Option A

Q2. The following paragraph contains four sentences, three of which are grammatically incorrect and only one is correct. Identify the one that is correct.

Products have a limited life, not only from the consumers viewpoint, but also as far as the producer is concerned. For example, a particular model of a car might last five years before production is stopped and it's replaced by a completely new model. New inventions and technology has made many products obsolete. Fashion can be another major influence on the lives of a product.

A. New inventions and technology has made many products obsolete.
B. For example, a particular model of a car might last five years before production is stopped.
C. Fashion can be another major influence on the lives of a product.

D. Products have a limited life, not only from the consumers viewport but also as far as the producer is concerned.

Answer: Option B

Q3. For the four sentence (1-4) paragraph below, sentences 1 and 4 are given. From P, Q, R and S, select the appropriate sentences for 2 and 3 respectively.

1. The totalitarian regimes established in the 1920s and 1930s grossly violated human rights in their own territories.
2.
3.
4. This was reflected in the Charter of the UN signed on 26 June 1945.

P. The ideas of elaboration and protection of human rights have been gradually transformed into written laws.

Q. During the II World War, there was massive abuse of human life and property.

R. However, the Charter does not establish any specific mechanism of implementation.

S. It became clear that international instruments were needed to codify and protect human rights.

A. QS
B. PQ
C. QP
D. PR

Answer: Option A

Q4. Sentences of a paragraph are given below with jumbled order . Arrange the sentences in the correct order to form a meaningful and corrected paragraph.

1. The effort of talking in a foreign language also makes people reflect more on what they are saying, and take rational decisions while speaking.
2. Anyone who lives or works in a non-English speaking country benefits hugely from almost any familiarity with its language.
3. Beyond the individual benefits, 21st century global relations and economics vitally need people who can function fluently abroad.
4. With the global rise of English, may native English speakers question the need for learn a foreign language, but there are several good reasons to do so.

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

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

Answer: Option C

Q5. To create a truly successful movie, the director, the writer, actors, and the cinematographer must work together with other people closely.

A. felicitate
B. collaborate
C. corroborate
D. facilitate

Answer: Option B

Q6. Select the most appropriate ANTONYM of the given word.

Compassionate

A. Virulent
B. Peerless
C. Benevolent
D. Ruthless

Answer: Option D

Q7. Read the passage below and answer the question that follows.

Offering children a choice facilitates cooperation and usually avoids a war of the wills. Often at this age young children oppose what parents impose on them, simply to exert their independence. This stubbornness isn't necessarily bad. In fact, it's a sign of individuality. If children are given two choices, such as bread or wheat flakes for breakfast, everyone gets a choice and eventually a content healthy breakfast is had. The child can say "No" to one of them, and there isn't a battle about breakfast.

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

A. Children should eat only bread or wheat flakes for breakfast.
B. Choices to be offered to children should be selected by parents.
C. When children say NO to something, a new choice should be given
D. There are situations where children should have absolutely no say

Answer: Option C

Qs 8 to 10: In the following passage, some words have been deleted. Read the passage carefully and select the most appropriate option to fill in each blank.

As the world economy wakes back up, shortages and price spikes are affecting everything from the supply of Taiwanese chips to the cost of a French breakfast. One kind of bottleneck deserves special attention : the supply-side problems, such as scarce metals and land constraints, that threaten to ____ the green-

energy boom. Far from being transitory, these bottlenecks risk becoming a recurring feature of the world economy for years to come because the shift to a ____ energy system is still only in its infancy. Governments must respond to these market signals, facilitating a huge private-sector investment boom over the next decade that increases capacity. If they do not, they stand little chance of keeping their promises to reach the 'net-zero' _____ And there has been a dramatic shift in the attitude of business. Investors are demanding that firms change tack, spurred by the new reality that clean technologies are more_____ competitive.

Q8. If they do not, they stand little chances of keeping their promises to reach 'net-zero' _____

A. discharges
B. remissions
C. infections
D. emissions

Answer: Option D

Q9. One kind of bottleneck deserves special attention : the supply-side problems, such as scarce metals and land constraints, that threaten to ____ the green-energy boom.

A. glow
B. slow
C. blow
D. low

Answer: Option B

Q10. Investors are demanding that firms change tack, spurred by the new reality that clean technologies are more_____ competitive.

A. cost
B. profit
C. money
D. loss

Answer: Option A

Advanced Quantitative Aptitude

Q1. A and B started a business, where the investment of A was 40% of the total investment. B invested his sum for 4 months. The profit received by A was 4/7 of the total profit. Find the time period of investment of A.

A. 6 months
B. 4 months
C. 8 months

D. 12 months

Answer: Option C

Q2. A sum of Rs. 7,500 amounts to Rs. 9,075 at 10% p.a. in a certain time, when the interest is compounded annually. What is the amount (in Rs) of the same sum at the same rate for 6/5 of the earlier time?

A. 9,438
B. 9,580
C. 9,412
D. 9680

Answer: Option A

Q3. The average weight of some students in a class is 62 kg. If 8 students of average weight 55 kg leave the class and 13 students of average weight 65 kg join the class, then the average weight of the remaining students in the class is 63.9 kg. The number of students in the class, initially was _____.

A. 55
B. 45
C. 40
D. 50

Answer: Option B

Q4. Raj sold his bat at x% profit after giving a discount of x%. The marked price was INR 2,400 more than the cost price and the selling price was INR 900 more than the cost price. Find the value of 4x.

A. 50
B. 200
C. 40
D. 100

Answer: Option D

Q5. The taxi charges in a city consists of a fixed charge together with the charge for the distance travelled in kilometres. When a person travels 72 kms, he pays INR 1170. He pays IN 898 for traveling 55 km. What will he have to pay for traveling 45 km?

A. INR 693
B. INR 738
C. INR 740
D. INR 826

Answer: Option B

Q6. When a number x is divided by 9, the remainder is 6. When the same number is divided by 21,the remainder is 12. If x lies between 250 and 450, then what is the sum of all possible values of x?

A. 1044
B. 1107
C. 855
D. 666

Answer: Option A

Q7. C can complete the work alone in 60 days. A and B take 40% and 75% more time than C. The work was started by A and B and C worked with A on every third day. In how many days will the work be completed?

A. 16 ¼
B. 48 ⅕
C. 48 ¼
D. 16 ⅕

Answer: Option B

Q8. A sum when lent at the rate of 15% p.a. simple interest for x years amounted to INR 17,600. When the same sum was lent at the rate of 18% p.a. simple interest for (x+2.5) years, it amounted to INR 24,320. The value of x and the sum (in INR) respectively are:

A. 2.5 and 12,800
B. 2 and 12,500
C. 3.5 and 12,800
D. 2.5 and 12,500

Answer: **Option A**

Q9. A and B start from the same point and cover equal distances. A travels by car and covers the distance in 3 hours with a speed of 50 kmph. B travels by a bus which stops for 10 minutes after covering 10 km. In how much time will the bus reach the destination, if the speed of the bus is 40% less than the car.

A. 7 h 20 min
B. 7 h 30 min
C. 7 h
D. 6 h 40 min

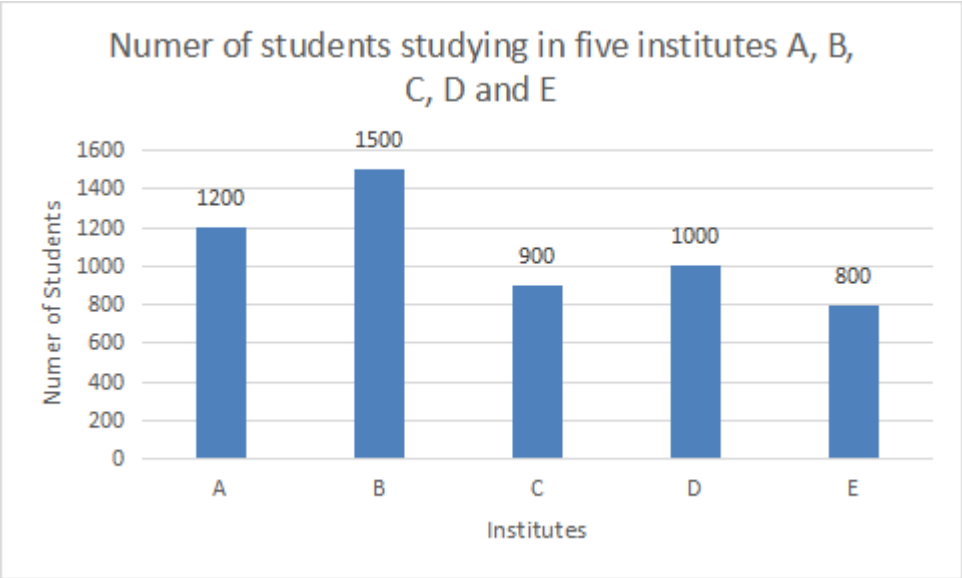
Answer**: Option A**

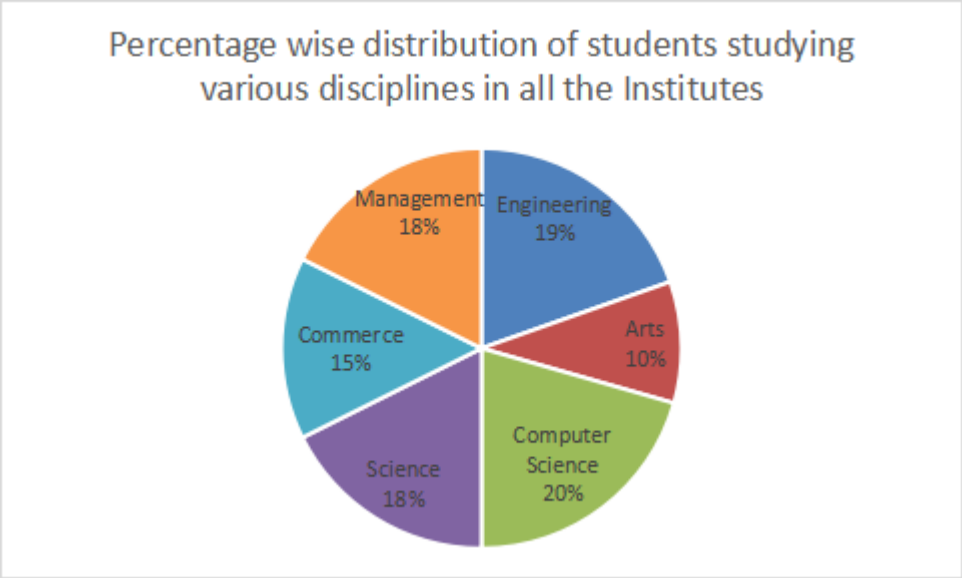
Q10. Ramesh can complete a work in 20 days. Mohan is 66.67% as efficient as Ramesh. Mohan and Ramesh begin to work together. Ramesh leaves after working for some days. The remaining work is completed by Mohan in 10 days. After how many days does Ramesh leave the work?

A. 10 days
B. 6.5 days
C. 8 days
D. 8.5 days

Answer: Option C

Direction (11-14): Study the given graph, pie chart and table and answer the question.





Discipline	Ratio of male to female student
Management	5:3
Engineering	2 : 3
Science	7 : 11

Arts	3 : 2
Computer Science	10 : 11
Commerce	8 : 7

Q11. The total number of female students studying Arts in all the five institutes is what percentage of the total number of students studying Engineering in institutes A, B and C?

A. 40%
B. 35%
C. 30%
D. 25%

Answer: Option C

Q12. The total number of male students in Computer Science all the five institutes is what percentage is more than the number of female students studying Engineering in institutes A, C, D and E (correct to one decimal place)?

A. 14.6%
B. 16.2%
C. 15.4%
D. 13.3%

Answer: Option C

Q13. What is the ratio of the total number of male students studying Management in institutes B and D to the total number of students studying Engineering in institutes A and E?

A. 4 : 7
B. 8 : 9
C. 3 : 5
D. 5 : 8

Answer: Option B

Q14. The total number of students studying Science in institutes A and D is approximately what percentage more than the total number of male students studying Commerce in institutes B, C and E? (correct to one decimal place)

A. 54.7%
B. 35.4%
C. 42.8%
D. 48.6%

Answer: A

Advanced Coding

Q1. Problem statement:

Given two non-negative integers n1 and n2, where n1 <n2. The task is to find the total number of integers in the range interval [n1, n2] [both inclusive] which have no repeated digits.

For e.g.

Suppose n1 = 11 and n2 = 15.

There is the number 11, which has repeated digits, but 12, 13, 14, and 15 have no repeated digits. So, the output is 4.

Input	Output
11 -- Value of n1 15 -- Value of n2	4
101 -- Value of n1 200 -- Value of n2	72

Code Solution in Python

```python
def repeated_digit(n):
    a = []
    while n != 0:
        d = n%10
        if d in a:
            return 0
        a.append(d)
        n = n//10
    return 1
def calculate(L,R):
    answer = 0
    for i in range(L,R+1):
        answer = answer + repeated_digit(i)
    return answer
L=int(input())
R=int(input())
print(calculate(L, R))

```

Code Solution in Java

```java
import java.util.*;
class Main
{
static int repeated_digit(int n)
{
    LinkedHashSet<Integer> s = new LinkedHashSet<>();
    while (n != 0)
    {
        int d = n % 10;
        if (s.contains(d))
        {
            return 0;
        }
        s.add(d);
        n = n / 10;
    }
    return 1;
}
static int calculate(int L, int R)
{
    int answer = 0;
    for (int i = L; i < R + 1; ++i)
    {
        answer = answer + repeated_digit(i);
    }
    return answer;
}
public static void main(String[] args)
{
    Scanner sc=new Scanner(System.in);
    int L=sc.nextInt();
    int R=sc.nextInt();
    System.out.println(calculate(L, R));
}
}
```

Code Solution in C

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

void printUnique(int l, int r)
{
    int count = 0;
    for (int i=l ; i<=r ; i++)
    {
        int num = i;
        bool visited[10] = {false};
        while (num)
        {
            if (visited[num % 10])
                break;

            visited[num%10] = true;

            num = num/10;
        }

        if (num == 0)
            count++;
    }
    printf("%d",count);
}

int main()
{
    int l,r;
    scanf("%d%d",&l,&r);
    printUnique(l, r);
    return 0;
}
```

Code Solution in C++

```cpp
#include<bits/stdc++.h>
using namespace std;

void printUnique(int l, int r)
{
    int count = 0;
    for (int i=l ; i<=r ; i++)
    {
        int num = i;
        bool visited[10] = {false};
        while (num)
        {
            if (visited[num % 10])
                break;

            visited[num%10] = true;

            num = num/10;
        }

        if (num == 0)
            count++;
    }
    cout<<count;
}

int main()
{
    int l,r;
    cin>>l>>r;
    printUnique(l, r);
    return 0;
}
```

Q2. Problem statement:

Given an array Arr[] of N integers and a positive integer K. The task is to cyclically rotate the array clockwise by K.

Note: Keep the first position of the array unaltered.

Example	Input	Output	Explanation
Example 1	5 -- Value of N {10, 20, 30, 40, 50} -- Elements of Arr[] 2 -- Value of K	40 50 10 20 30	Arr[] = {10, 20, 30, 40, 50} and K = 2 (Two cyclical rotations) After 1st rotation = {10, 50, 20, 30, 40} After 2nd rotation = {10, 40, 50, 20, 30}
Example 2	4 -- Value of N {10, 20, 30, 40} -- Elements of Arr[] 1 -- Value of K	40 10 20 30	Arr[] = {10, 20, 30, 40} and K=1 (One cyclical rotation) After 1st rotation = {10, 40, 20, 30}

Constraints

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

Input format for testing

- The candidate should write the code to accept the inputs separated by a new line.
- First Input: Accept a single positive integer value for N representing the size of Arr[]
- Second Input: Accept N number of integer values separated by a new line, as elements of Arr[]
- Third input: Accept a single positive integer value for K representing the number of rotations.

Output format for testing

- The output must be N integer numbers separated by a single space character.
- Additional messages in the output will result in the failure of test cases.

Instructions

- The system does not allow any kind of hard-coded input value/ values.

- The written program code by the candidate will be verified against the input which are supplied from the system.

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 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;
}
```

Code Solution 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;
}
```