



The second slot of the TCS Digital exam (2022 pass-outs hiring from TCS accredited campuses) happened on **7th Aug 2021** from **5 to 7 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	1
TCS Digital Assessment Platform	2
TCS Digital Syllabus	2
TCS Digital Slot Analysis	3
Questions With Answers	3
Verbal Ability	3
Advanced Quantitative Aptitude	6
Advanced Coding	11

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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • Reading Comprehension • Para-jumbles • Vocabulary (Synonyms, Antonyms) • Sentence Correction • Sentence Improvement • Sentence Completion
Advanced Quantitative Aptitude	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • Looping • Decision Making • Functions • Arrays • Strings • Data Structures • Algorithms • Math-based
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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.
- 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 kitchen is compact but has everything one needs. .

- A. spacious and well designed
- B. small and very cramped
- C. spacious but disorganised
- D. small but well organised

Answer: Option D

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.



We are always negotiating not only in business but also in our private lives, from deciding what to watch on TV to deciding where to go for a vacation. Rarely, in fact, was any form of decision reached without some form of negotiation. Even though we practice this art on a regular basis, it is always useful to review what we already subconsciously are knowing. There are some good books that provided us with strategies for negotiating effectively, no matter what situation one finds oneself in.

- A. Rarely, in fact, was any form of decision reached without some form of negotiation.
- B. There are some good books that provided us with strategies for negotiating effectively, no matter what situation one finds oneself in.
- C. we are always negotiating not only in business, but also in our private lives, from deciding what to watch on TV to deciding where to go for a vacation.
- D. Even though we practise this art on a regular basis, it is always useful to review what we already subconsciously are knowing.

Answer: Option C

Q3. Select the most appropriate option that can substitute the underlined words in the given sentence.

Naphtha, a cheap fuel extracted from crude oil, is added to petrol to make the quality of petrol poorer.

- A. vitiate
- B. obliterate
- C. adulterate
- D. mitigate

Answer: Option C

Q4. Read the passage the below and answer question that follows:

Genealogy is fun. Just as a piece of furniture or a picture takes on much more interest if you know it's history, so does an individual become more read once the ancestral elements that shaped him are known. An in-depth family history is a tapestry peepinsta of all those to whom we owe our existence.

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

- A. Genealogical research can bring meaning and life to a person's history.
- B. Finding out about our ancestors is more interesting than researching the history of objects.
- C. Knowing the genealogy of a person makes the person more real.
- D. To know a person well, one must know the family history and the events in his/her life.

Answer: Option A

Q5. Select the most appropriate ANTONYM of the given word

Auspicious

- A. Vicious
- B. Ominous
- C. Felicitous
- D. Pompous

Answer: B



Q6. For the four sentence(1 to 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. Freedom of religion or belief are fundamental and may not be suspended even in states of emergency.
- 2.
- 3.
4. The relation of the belief of the individual to the social and political context is a matter of controversy.

P. Conscientious objection to military service is also part of the right to freedom of belief.

Q. This freedom may be threatened by states that encourage an official religion or discourage some religious belief.

R. For conscientious objectors, an alternative form of public service must be offered in place of compulsory military service.

S. The protection is due to both religious believers and non-believers.

- A. PQ
- B. RQ
- C. PR
- D. SQ

Answer: Option A

Q7. Read the given passage and answer the questions that follow.

Typically, when an author signs a publishing contract, she or her agent negotiates an advance against royalties. When a book 'has sold for' so many dollars, this amount is the advance and not a flat purchase price. An advance is often paid in three installments: when the contract is signed, when the manuscript is accepted by the publisher, and when the book is published. Some publishers may break down these payments even more. Once the book is published, authors make a percentage of sales for each book sold, which are their 'royalties'. However they are essentially earning money they have already been paid. Once a book has made the author the amount of royalties they were advanced, they begin to earn additional royalties; this is often called earning out. If the book never makes the advance back, the author does not have to pay the overage back to the publisher, except in circumstances where they have violated/terminated the contract.

What does 'earning out' become operational?

- A. When royalties surpass the advance paid
- B. when authors receive a flat price not an advance
- C. when authors violate their contract
- D. when books get sold in bookstores or online

Answer: Option B

**Advanced Quantitative Aptitude**

Q1. 25 numbers were recorded and their average was calculated as 50.6. Later it was found that three numbers 29, 35, and 72 were wrongly taken as 92, 53 and 27 respectively, and one number 58 was inadvertently left out from being recorded. What is the correct average of all the numbers?

- A. 48.2
- B. 48.7
- C. 50.5
- D. 49.5

Answer: Option D

Q2. A sum of Rs. x was lent at 10% p.a. for 4 years, interest compounded annually. If the difference between the compound interest for the fourth year and the third year is Rs. 847, then what is the value of x?

- A. 63,000
- B. 77,000
- C. 70,000
- D. 66,000

Answer: Option C

Q3. The value of $\frac{(4.8)^3 - (3.2)^3}{(4.8)^2 + (3.2)^2} + \frac{[(8.6 * 49.2) + (25.8)^2 * 7.5]}{[(32.35)^2 - (9.85)^2 * 8.6]}$

- A. 14.6
- B. 11.2
- C. 9.6
- D. 12.2

Answer: Option D

Q4. In Examination, 50% passed in Maths and 75% passed in English and 20% passed in both subjects. Find the difference between the number of students who passed only in English to those who passed in Maths. If 270 students passed in both the subjects.

- A. 180
- B. 210
- C. 150
- D. 120

Answer: Option B

Q5. A bag contains z+2 black balls, z+5 red balls and z+8 white balls. The probability of getting a black ball is $\frac{1}{4}$, what is the probability of getting three red balls of different colour, when three balls are drawn?

- A. $\frac{45}{119}$
- B. $\frac{36}{119}$



- C. 27/119
- D. 23/119

Answer: Option C

Q6. Rajesh can complete a job in 18 days. Rohit is 50% more skilled than Rajesh. Find the total time taken to do the same job when they both work together.

- A. 7.4 days
- B. 7.2 days
- C. 7.10 days
- D. 7.0 days

Answer: Option B

Q7. A man walks around a square garden of perimeter 8km at a speed of 2 km/h, 3km/h, 4km/h and 5km/h, on each side of the square garden. Calculate its average speed.

- A. 2.912 km/h
- B. 3.312 km/h
- C. 3.112 km/h
- D. 3.212 km/h

Answer: Option C

Q8. An article is sold at 15% profit by giving a discount of 17.2%. The marked price of the article is Rs.5,000. Determine its cost price.

- A. Rs.5,095
- B. Rs.36,000
- C. Rs.3,600
- D. Rs.6,995

Answer: Option C

Q9. Cost of 5 pens and 7 notebooks is Rs 224. If the cost of a pen is increased by Rs 2 and notebook is reduced by 3 then the cost of 3 pen and 4 notebook is Rs 124. What is the original cost of 4 Pen and 3 notebooks ?

- A) 144
- B) 121
- C) 127
- D) 122

Answer: Option B



Q10. A and B invested in the ratio 4:5 A left after 9 months and B increased by 20 % and C joined with an investment of 33.33% of present investment of B. The annual profit was 42000. Find percentage difference between A and B to that of A.

- A) 175%
- B) 75%
- C) 25%
- D) 50%

Answer: Option B

Q11 The amount obtained by Sumit by investing a sum of Rs 10,920 for 3 years at the rate of 10% simple interest is equal to the amount obtained by Raghav by investing a certain sum in Rs for 5 years at the rate of 8% per annum SI. What is 85% of the sum invested by Raghav

- A) 8519
- B) 8619
- C) 8591
- D) 8692

Answer Option B

Q12. A man walks around a square garden 8km at a speed of 2 kmph, 3kmph, 4 kmph and 5 kmph on each side of the square garden. Calculate avg speed

- A) 3.112
- B) 2.912
- C) 3.312
- D) 3.212

Answer : Option D

Direction (Q13 to Q15) There are 800 players in a stadium who are participating in 4 sports A,B,C and D. The ratio of male to female players is 9:7. The ratio of male players who are participating sport A to male players in other three sports is 4 :5

12% of male players who are not participating in A are participating in sport D . The remaining male players are participating in sports B and C in the ratio 5:6

48% of the female players are participating in sports A and 22 female players are participating in sport B. The remaining female players are participating in sports C and D in the ratio 7:9

Q13. Approximately what percentage of total players participating in sport D is equal to the number of female players playing sport C?

(correct to one decimal places)



- A) 59.8
- B) 57.6
- C) 57.9
- D) 58.3

Answer: Option D

Q14. The number of female players participating in sports A and B together is what percentage more than the number of male players participating in sports B and D together (correct to one decimal)

- A) 31.8
- B) 46.2
- C) 31.2
- D) 48.4

Answer: Option B

Q15. The average number of male players participating in sport A, B and C is what percentage less than the number of female players participating in sports C and D together?

- A) 12.5
- B) 10
- C) 12.0
- D) 9.5

Answer : Option A

**Advanced Coding**

Q1. For hiring a car, a travel agency charges R1 rupees per hour for the first N hours and then R2 rupees per hour. Given the total time of travel in minutes is X. The task is to find the total traveling cost in rupees.

Note: While converting minutes into hours, ceiling value should be considered as the total number of hours.

For example: If the total travelling time is 90 minutes,

i.e. 1.5 hours, it must be considered as 2 hours.

Input	Output	EXplanation
20 ---Value of R1 4 --- Value of N in hours 40 --- Value of R2 300 --- Value of X in minutes	120	Total travelling hours = $300/60 = 5$ hours Rupees 20/hours for first 4 hours $= 20 * 4 = 80$ rupees Rupees 40/hours in 5th hour = $40 * 1 = 40$ rupees Hence, the total travelling cost = $80 + 40 = 120$ rupees
30 --- Value of R1 5 --- Value of N in hours. 35 --- Value of R2 500 -- Value of X in minutes	290	Total travelling hours = $500/60 = 8.33$, Ceiling value of 8.33 = 9 hours Rupees 30/hours for first 5th hours = $30 * 5 = 150$ rupees Rupees 35/hours in 5th hour = $35 * 4 = 140$ rupees Hence, the total travelling cost = $150 + 140 = 290$ rupees
30--- Value of R1 10--- Value of N in hours 35 ---- Value of R2 5 --- Value of X in minutes	30	Total travelling hours = $3/60 = 0.05$, Ceiling value of 0.05 = 1 hour Rupees 30/hour for first 10 hours $= 30 * 1 = 30$ rupees

Constraints:

$1 < R1 < R2 < 100$

10

 $1 \leq N \leq 10$ $1 \leq X \leq 10000$

Code Solution in Python

```
r1 = int(input())
n = int(input())
r2 = int(input())
k = int(input())
hr = (k+59)//60
if(hr > n):
    focus = n*r1+(hr-n)*r2
else:
    focus = n*r1
print(focus)
```

Code Solution in Java

```
import java.util.*;
class Main
{
    public static void main(String args[])
    {
        Scanner sc=new Scanner(System.in);
        int r1=sc.nextInt();
        int n=sc.nextInt();
        int r2=sc.nextInt();
        int k=sc.nextInt();
        int focus,hr;
        hr = (k+59)/60;
        if(hr > n)
            focus = n*r1+(hr-n)*r2;
        else
            focus = n*r1;
        System.out.println(focus);
    }
}
```



Code Solution in CPP

```
#include<iostream>
using namespace std;
int main()
{
    int r1,n,r2,k,focus,hr;
    cin>>r1>>n>>r2>>k;
    hr = (k+59)/60;
    if(hr > n)
    {
        focus = n*r1+(hr-n)*r2;
    }
    else
    {
        focus = n*r1;
    }
    cout<<focus;
    return 0;
}
```

Code Solution in C

```
#include<stdio.h>
int main()
{
    int r1,n,r2,k,focus,hr;
    scanf("%d%d%d%d",&r1,&n,&r2,&k);
    hr = (k+59)/60;
    if(hr > n)
    {
        focus = n*r1+(hr-n)*r2;
    }
    else
    {
        focus = n*r1;
    }
    printf("%d",focus);
    return 0;
}
```



Q2. There is a bag with three types of gemstones: Ruby of type R, Garnet of type g, and Topaz of type T. Write a program to find the total number of possible arrangements to make a series of gemstones where no two gemstones of the same type are adjacent to each other.

Input	Output	Explanation
1-Count of R i.e. Ruby 1-Count of G i.e. Garnet 0-Count of T i.e.	2	Arrangements are RG and GR.
1-Count of R i.e. Ruby 1-Count of G i.e. Garnet 1-Count of T i.e. Topaz	6	Arrangements are RGTR, GRTR, RGRT, RTGR, RTRG AND TRGR

Code Solution in CPP

```
#include<bits/stdc++.h>
using namespace std;
int countWays(int p, int q, int r, int last)
{
    if (p<0 || q<0 || r<0)
        return 0;
    if (p==1 && q==0 && r==0 && last==0)
        return 1;
    if (p==0 && q==1 && r==0 && last==1)
        return 1;
    if (p==0 && q==0 && r==1 && last==2)
        return 1;
    if (last==0)
        return countWays(p-1,q,r,1) + countWays(p-1,q,r,2);
    if (last==1)
        return countWays(p,q-1,r,0) + countWays(p,q-1,r,2);
    if (last==2)
        return countWays(p,q,r-1,0) + countWays(p,q,r-1,1);
}

int faceprep(int p, int q, int r)
{
    return countWays(p, q, r, 0) +
           countWays(p, q, r, 1) +
           countWays(p, q, r, 2);
}

int main()
{
    int p,q,r;
    cin>>p>>q>>r;
    printf("%d", faceprep(p, q, r));
    return 0;
}
```



Code Solution in C

```
#include<stdio.h>

int countWays(int p, int q, int r, int last)
{
    if (p<0 || q<0 || r<0)
        return 0;
    if(p == 1 && q == 0 && r== 0 && last == 0)
        return 1;
    if (p==0 && q==1 && r==0 && last==1)
        return 1;
    if (p==0 && q==0 && r==1 && last==2)
        return 1;

    if (last==0)
        return countWays(p-1,q,r,1) + countWays(p-1,q,r,2);
    if (last==1)
        return countWays(p,q-1,r,0) + countWays(p,q-1,r,2);
    if (last==2)
        return countWays(p,q,r-1,0) + countWays(p,q,r-1,1);
}

int faceprep(int p, int q, int r)
{
    return countWays(p, q, r, 0) + countWays(p, q, r, 1) + countWays(p, q, r, 2);
}

int main()
{
    int p,q,r;
    scanf("%d%d%d",&p,&q,&r);
    printf("%d", faceprep(p, q, r));
    return 0;
}
```



Code Solution in Python

```
def countWays(p,q,r,last):
    if (p<0 or q<0 or r<0):
        return 0
    if(p == 1 and q == 0 and r== 0 and last == 0):
        return 1
    if (p==0 and q==1 and r==0 and last==1):
        return 1
    if (p==0 and q==0 and r==1 and last==2):
        return 1
    if (last == 0):
        return countWays(p-1,q,r,1) + countWays(p-1,q,r,2)
    if(last == 1):
        return countWays(p,q-1,r,0) + countWays(p,q-1,r,2)
    if(last == 2):
        return countWays(p,q,r-1,0) + countWays(p,q,r-1,1)

def faceprep(p,q,r):
    return countWays(p, q, r, 0) + countWays(p, q, r, 1) + countWays(p, q, r, 2)
p = int(input())
q = int(input())
r = int(input())
print(faceprep(p, q, r))
```



Code Solution in Java

```
import java.util.*;
class Main{
    static int countWays(int p, int q, int r, int last)
    {
        if (p < 0 || q < 0 || r < 0)
            return 0;
        if (p == 1 && q == 0 && r == 0 && last == 0)
            return 1;
        if (p == 0 && q == 1 && r == 0 && last == 1)
            return 1;
        if (p == 0 && q == 0 && r == 1 && last == 2)
            return 1;
        if (last == 0)
            return countWays(p - 1, q, r, 1) +
                   countWays(p - 1, q, r, 2);
        if (last == 1)
            return countWays(p, q - 1, r, 0) +
                   countWays(p, q - 1, r, 2);
        if (last == 2)
            return countWays(p, q, r - 1, 0) +
                   countWays(p, q, r - 1, 1);
        return 0;
    }
    static int faceprep(int p, int q, int r) {
        return countWays(p, q, r, 0) +
               countWays(p, q, r, 1) +
               countWays(p, q, r, 2);
    }

    public static void main(String[] args)
    {
        Scanner sc=new Scanner(System.in);
        int p=sc.nextInt();
        int q=sc.nextInt();
        int r=sc.nextInt();
        System.out.print(faceprep(p, q, r));
    }
}
```