

**About TCS**

TCS is an Indian multi-national company that provides information technology services, consulting and business solution company. It is a subsidiary of TATA group and is one of the biggest and most prominent mass recruiter.

**Placement process for Ninja**

National Qualifier Test*	English		No. of questions: 10 Total duration: 10 minutes
	Quantitative Aptitude	Standard (15 questions)	No. of questions: 20 Total duration: 40 minutes
		Advanced (5 questions). May include FITB Qs	
	Programming Concepts	Standard (7 questions)	No. of questions: 10 Total duration: 20 minutes
		Advanced (3 questions). May include FITB Qs	
	Coding (C, C++, Java, Python, PERL)		No. of questions: 1 Total duration: 20 minutes

Technical and HR interview

**\* Additional info to note –**

1. Negative marking for MCQ, no negative marking for FITB Qs
2. Sectional cutoff applicable, including on sub sections (Advanced)
3. Performance in advanced sections crucial to interview selection as well as possible jump to TCS Digital role.

**Expectation from a student**

<b>English</b>	<ol style="list-style-type: none"> <li>1. Know basic grammar rules</li> <li>2. Understand the usage of grammar rules and words</li> <li>3. Identify the context of the sentence/paragraph and decide on appropriate word/order that fits with the context of the sentence/paragraph</li> </ol>
<b>Aptitude</b>	Proficient in numeric problem solving
<b>Technical MCQ</b>	Basic know of C, Data structures and Algorithms
<b>Coding</b>	Able to write basic programs

**Quantitative Aptitude**

Q1. Easha bought two varieties of rice, costing Rs 50 per kg and Rs. 60 per kg each and mixed them in some ratio. Then she sold the mixture

at Rs. 70 per kg, making a profit of 20%. What was the ratio of the mixture?

- a. 1:10      b. 3:8      c. 1:5      d. 2:7

Answer: c

Q2. Jake can dig a well in 16 days. Paul can dig the same well in 24 days. Jake, Paul and Hari together dig the well in 8 days. In how many days Hari alone can dig the well?

- a. 32 days      b. 48 days      c. 96 days      d. 24 days

Answer: b

Q3. There is a set of 39 distinct points on a plane with the following characteristics:

- \* There is a subset A consisting of eight collinear points.
- \* Any subset of three or more collinear points from the 39 are a subset of A.

How many distinct triangles with positive area can be formed with each of its vertices being one of the 36 points? (Two triangles are said to be distinct if at least one of the vertices is different)

- a. 9083      b. 9139      c. 8215      d. 4495

Answer: a

Q4. An ant smartly moves across a staircase taking the shortest distance. Calculate the distance it takes to reach the top to B from A given that staircase consists of 2 steps. It is also known that the length, breadth and height is 6 cm, 1cm and 1cm respectively.

- a.  $2\sqrt{25}$       b.  $\sqrt{52}$       c.  $\sqrt{7}$       d. 9

Answer: b

Q5. Roshan is proud of his Swiss Watch that he got as birthday gift from his father. Roshni like teasing her brother and on one occasion she said “what is there with a costly watch. The reflex angle between the hands are the same in yours and mine”. If the time was 11:20, then what was the reflex angle?

- a. 200      b. 310      c. 140      d. 290

Answer: c

Q6. Divide 50 into two parts, such that the sum of their reciprocals is  $\frac{1}{12}$ .

- a. 25, 25      b. 10, 40      c. 20, 30      d. 290

Answer: c

Q7. Three containers A, B and C are having mixtures of milk and water in the ratio of 1:5, 3:5, 5:7 respectively. If the capacities of the containers are in the ratio 5:4:5, find the ratio of milk to water, if all the three containers are mixed together.

- a. 53:115      b. 53:113      c. 54:115      d. 54:113

Answer: a

Q8. a,b, c chosen randomly and with replacement from the set {1,2,3,4,5}, the probability that  $a * b + c$  is even.

- a.  $\frac{1}{2}$       b.  $\frac{64}{125}$       c.  $\frac{59}{125}$       d.  $\frac{2}{5}$

Answer: c

Q9. Find the number of zeros in the expression  $15 \times 32 \times 25 \times 22 \times 40 \times 75 \times 98 \times 112 \times 125$ .

- a. 9      b. 7      c. 14      d. 12

Answer: a

Q10. In how many ways can 7 different objects be divided among 3 persons so that either one or two of them do not get any object?

- a. 36      b. 180      c. 381      d. 84

Answer: c

Q11. Ratio of the radii of the cylinder to the cone is 1:2. Assume, their heights are the same. Find the ratio of their volumes.

- a. 3:4      b. 1:2      c. 1:4      d. 4:1

Answer: a

Q12. Which of the following numbers must be added to 5678 to give remainder of 35 when divided by 460?

- a. 980      b. 797      c. 955      d. 618

Answer: b

Q13. George walks 36 kms partly at a speed of 4kms per hour and partly at 3 kms per hour. If he had walked at a speed of 3kms per hour when he had walked at 4 and 4 kms per hour when he had walked at 3 he would have walked only 34 kms. The time (in hours) spent by George walking was:

- a. 8      b. 12      c. 5      d. 10

Answer: d

Q14. The sum of four consecutive two-digit odd numbers, when divided by 10, becomes a perfect square. Which of the following can possibly be one of these four numbers?

- a. 67      b. 41      c. 25      d. 31

Answer: b

Q15. In how many ways a team of 11 must be selected from 5 men and 11 women such that the team comprises of not more than three men?

- a. 1234      b. 1565      c. 2456      d. 2256

Answer: d

Q15. 4 men throw a die each simultaneously. Find the probability that at least 2 people get the same number.

- a.  $\frac{5}{18}$     b.  $\frac{13}{18}$     c.  $\frac{1}{36}$     d.  $\frac{1}{2}$

Answer: b

Q16. There are 10 points on a straight line AB and 8 on another straight line AC none of them being point A. How many triangles can be formed with these points as vertices?

- a. 680    b. 720    c. 816    d. 640

Answer: d

Q17. How many 7-digit telephone numbers can be formed with 6 and 5 at the right and left extreme ends respectively?

- a. 2160    b. 720    c. 4320    d. None of these

Answer: d

Q18. In how many ways a cricketer can score a double century (200 runs) with only boundaries (fours) and over boundaries (sixes)?

- a. 15    b. 16    c. 17    d. 18

Answer: c

Q19. If all the numbers between 11 and 100 are written on a piece of paper, how many times will the number '4' be used?

- a. 20    b. 19    c. 9    d. None of these

Answer: b

Q20. P, Q, R, S are distinct integers that can take values from 1 to 12. What is the possible smallest value for  $(P/Q) + (R/S)$ ?

- a.  $(1/12) + (2/11)$     b.  $(1/11) + (9/10)$   
c.  $(1/11) + (2/12)$     d.  $(1/10) + (1/11)$

Answer: a

Q21. A alone can finish the work in 10 hours, B alone can finish the work in 12 hours and C alone can finish the work in 15 hours. A, B and C together started working at 11'o clock. After 2 hours A leaves. When will B & C will together will finish the work?

- a. 4'o clock    b. 5'o clock  
c. 4:20    d. 5:20

Answer: c

Q22. In the simple subtraction problem below some single digits (not necessarily distinct) are replaced by letters. Find the value of  $6*A + 5*B + 2*C*D$ ?

A1C5  
- 1B67

\_\_\_\_\_

656D

- a. 121    b. 129    c. 116    d. 127

Answer: a

Q23. After 6 years Raju's father's age will be twice that of his age and 2 years ago, his mother's age was twice that of Raju's age. What is the sum of Raju's parents' age?

- a. 4 less than four times Raju's age  
b. 2 more than four times Raju's age  
c. 4 more than four times Raju's age  
d. 2 less than four times Raju's age

Answer: c

### Advanced Aptitude

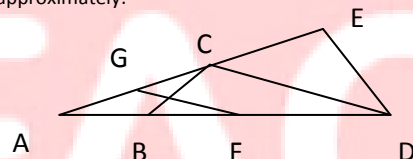
Q1. 1 red flag, 3 white flags and 2 blue flags are arranged in a line such that:

- I. No two adjacent flags are of the same colour  
II. The flags at the ends are of 2 different colours.  
In how many different ways the flags be arranged?

- a. 6    b. 4    c. 10    d. 2

Answer: a

Q2. In the figure  $AB = BC = CD = DE = EF = FG = GA$ . Then angle DAE is approximately:



- a.  $15^\circ$     b.  $20^\circ$     c.  $30^\circ$     d.  $25^\circ$

Answer: d

Q3. A farmer has decided to build a wire fence along one straight line of his property. For this he planned to place several fence-posts at 6m intervals, with posts fixed at both ends of the side. After he bought the posts and wire, he found that the number of posts he had bought was five less than required. However, he discovered that the number of posts he had bought would be just sufficient if he spaced them 8m apart. What is the length of the side of his property and how many posts did he buy?

- a. 100m, 15    b. 100m, 16  
c. 120m, 15    d. 120m, 16

Answer: d

Q4. ABCDEFGH is a regular octagon. A and E are opposite vertices of the octagon. A frog starts jumping from vertex to vertex, beginning from A. From any vertex of the octagon except E, it may jump to either of the two adjacent vertices. When it reaches E, the frog stops and stays there. Let  $a_n$  be the number of distinct paths of exactly n jumps ending in E. Then what is the value of  $a_{2n-1}$ ?

- a. 0    b. 4    c.  $2n - 1$     d. Cannot be determined

Answer: a

Q5. Consider obtuse-angled triangles with sides 8 cm, 15 cm and x cm. If x is an integer then how many such triangles exist?

- a. 5    b. 21    c. 10    d. 15

Answer: c

### English

#### Questions 1 to 4

Fill in the blanks with suitable words.

New industries supported by foreign interests \_\_\_\_Q1\_\_\_\_ offer better salaries to their employees at all levels of responsibility than \_\_\_\_Q2\_\_\_\_ locally-owned industries. They need talented people and are willing to pay high wages to retain them. Local industries often \_\_\_\_Q3\_\_\_\_ against the high salaries offered by foreign supported industries, arguing that this will unreasonably raise all wages to an excessive level. Workers in local industries, seeing the sharp \_\_\_\_Q4\_\_\_\_ in job-pay will agitate for an improvement in their salaries. This eventually will drain the resources and lower their profitability.

Q1

- a. hardly    b. reluctantly    c. seldom    d. usually

Answer: d

Q2

- a. did    b. could    c. do    d. their

Answer: d

Q3

- a. uphold    b. imitate    c. protest    d. pay

Answer: c

Q4

- a. difference    b. cut    c. hike    d. decrease

Answer: a

#### Questions 5 to 8

Fill in the blanks with suitable words.

When she appeared on the screen without \_\_\_\_Q5\_\_\_\_, cosmetic sales

declined. When she played a nun, convent enrolments \_\_\_Q6\_\_\_. Letters were delivered to her addressed simply "Ingrid Bergman". Industrialist Howard Hughes once \_\_\_Q7\_\_\_ every available air tickets from New York to Los Angeles to be sure she would accept a seat in his private plane. An \_\_\_Q8\_\_\_ walked a sheep all the way from Sweden to Rome as a gift for her.

Q5

- a. shoes    b. hat    c. gloves    d. make-up

Answer: d

Q6

- a. increased    b. decreased  
c. lessened    d. indifferent

Answer: d

Q7

- a. brought    b. bought  
c. sold    d. boarded

Answer: b

Q8

- a. administrator    b. accomplice  
c. acrobat    d. admirer

Answer: b

#### Questions 9 to 13

Choose the most logical order of sentences among the given choices to construct a coherent paragraph.

Q9.

- A. Their entire philosophy is based on the recognition that all men are made by nature to be equals, therefore no one has a natural right to govern others, and therefore the only justified authority is the authority that is generated out of agreements or covenants.  
B. The social contract theorists recognised the need to have an agency for the protection of man and his property.  
C. Therefore, this period built on the concept of an individual, inalienable rights as maintainable in a collective whole.  
D. What was built on did not lead to the advocacy of the creation of a sovereign state though.
- a. DBCA    b. DCBA    c. BACD    d. BADC

Answer: c

Q10

- A. Mr. Sherlock House, who was usually very late in the mornings, save upon those not infrequent occasions when he was up all night, was seated at the breakfast table.

- B. "To James Morrisson, M.R.C.S., from his friends of the C.C.H.," was engraved upon it, with the date "1884."  
C. It was a fine, thick piece of wood, bulbous-headed, of the sort which is known as a "Penang lawyer."  
D. It was just such a stick as the old-fashioned family practitioner used to carry--dignified, solid, and reassuring.  
E. I stood upon the hearth-rug and picked up the stick which our visitor had left behind him the night before.  
F. Just under the head was a broad silver band nearly an inch across.

- a. AECFBD    b. ABCEDF  
c. FDBAEC    d. FBAECD

Answer: a

Q11

- A. Not unlike most other Asian countries, Indian children are socialized into a system where they are expected to obey and respect authority figures without ever questioning their actions.  
B. An all pervasive sensibility that rebellion is a sign of bad upbringing breeds a culture of abuse by encouraging sexual predators.  
C. Two adults in India are often seen to exercise a near feudal hold over children demanding their unquestioned and complete obedience.  
D. The reasons for the rampant instances of sexual abuse in India are manifold and rooted deep within the country's social fabric.

- a. DABC    b. ABDC    c. DBAC    d. CBAD

Answer: a

Q12

- A. This is problematic both theoretically and practically, because it has grave consequences for the way society views and treats the fundamental issues of women's lives.  
B. Crimes such as these against any group other than women would be recognized as a civil and political emergency as well as a gross violation of the victims' humanity.  
C. Significant numbers of the world's population are routinely subject to torture, starvation, terrorism, humiliation, mutilation, and even murder simply because they are female.  
D. Yet, despite a clear record of deaths and demonstrable abuse, women's rights are not commonly classified as human rights.

- a. BACD    b. DACB    c. ADBC    d. CBDA

Answer: d

Q13

- A. There is a strong manufacturing base for a variety of products.  
B. India has come a long way on the technology front.

- C. But the technology adopted has been largely of foreign origin.  
D. There are, however, areas such as atomic energy, space, agriculture and defence where significant strides have been made in evolving relevant technologies within the country.

- a. ADCB    b. DBAC    c. BACD    d. CBAD

Answer: c

Q14

- A. Central planning has failed the world over.  
B. Hope cannot be dropped from helicopters.  
C. The people, especially in remote areas, must have the power and resources to script their future.  
D. It needs to be built though good governance at the local level.

- a. BDAC    b. ACBD    c. BCDA    d. DABC

Answer: a

#### Questions 15 to 17

Select the word which is closest in meaning to the stem word.

Q15. Receptacle

- a. Dissipation    b. Dispersal  
c. Repository    d. Leak

Answer: c

Q16. Tumult

- a. Truce    b. Bedlam    c. Peace    d. Concord

Answer: b

Q17. Infuriate

- a. Exasperate    b. Placate    c. Comfort    d. Soothe

Answer: a

#### Questions 18 to 20

Select the word which is farthest in meaning to the stem word.

Q18. Odious

- a. abhorrent    b. palatable  
c. infamous    d. munificent

Answer: b

Q19. Dole

- a. amass    b. dispute    c. mete    d. canvass

Answer: a

Q20. Tractable

- a. hale    b. tenacious    c. incalcitrant    d. obedient

Answer: c

**Questions 21 to 23**

Select the lettered pair that best expresses a relationship similar to that expressed by the original pair.

Q21. THWART : ABET ::

- a. strip : befit                      b. lacerate : incise  
c. savor : enjoy                      d. murmur : caterwaul

Answer: d

Q22. CUPOLA : ROOF ::

- a. branch : tree                      b. building : story  
c. airplane : propeller              d. statue : pedestal

Answer: d

Q23. CHECKERS : CHESS ::

- a. tennis : soccer                      b. field hockey : ice hockey  
c. hearts : bridge                      d. square : diamond

Answer: c

**Questions 24 to 26**

Identify the part of the sentence which contains error(s).

Q24. Many middle class individuals (A) /find that they cannot get good medical attention (B) /despite they need it badly (C) /because of the high cost of treatment. (D)

- a. A      b. B      c. C      d. D

Answer: c

Q25. Amphibians are creatures which (A)/ live equally effortlessly (B)/ in water and land are found (C)/ in all the countries of the world. (D)

- a. A      b. B      c. C      d. D

Answer: c

Q26. Anbuselvan leads a content life (A)/ with his relatives in his village (B)/ and rarely visits the city, though (C)/ he has many friends here. (D)

- a. A      b. B      c. C      d. D

Answer: a

**Questions 27 to 30**

Choose the option which can best replace the underlined part:

Q27. Inertia-gravity waves cause characteristic stripy patterns in the clouds in the lower atmosphere but they are disregarded by conventional weather forecasts because they are thought to be too small to interact with larger systems such as warm and cold fronts.

- a. they are disregarded by conventional weather forecasts because they are thought to be too small  
b. they are disregarded by conventional weather forecasts because these waves are thought to be too small  
c. conventional weather forecasts disregard them because they think they are too small  
d. conventional weather forecasts disregard these waves because they are thought to be too small

Answer: d

Q28. In archaeological terms the university was a latecomer to the town, which was already centuries old by the time we first hear of the establishment of a community of scholars and teachers in the late 12th Century.

- a. which was already centuries old by the time we first hear of the establishment of  
b. already centuries old by the time we first hear of its establishment of  
c. which was centuries old already when we first hear of the establishment of  
d. that was already centuries old by the time we first hear that they had established

Answer: a

Q29. The recent photographs of the giant squid are remarkable because they show these enormous living creatures as moving around in their natural environment, whereas previous pictures have been of only dead animals.

- a. because they show these living creatures as moving around in their  
b. in that they show this most enormous of living creatures moving around in its  
c. in that they show this enormous living creature moving around in its  
d. because these enormous living creatures are shown to be moving around in their

Answer: c

Q30. A teacher at the school acknowledged that despite government-sponsored endeavours to improve classroom performance, an extraordinary high percentage of their students fail to gain admission to higher education.

- a. an extraordinary high percentage of their students fail to gain admission to higher education  
b. an extraordinarily high percentage of its students fail to gain admission to higher education

- c. an extraordinary high percentage of its students fails to gain admission to higher education  
d. a high percentage of its students, extraordinarily high in fact, fails to gain admission to higher education

Answer: b

**Programming Concepts**

Q1. Memory allocation using malloc() is done in?

- a. static area                      b. Heap area  
c. stack area                      d. disc

Answer: b

Q2. What will be the output of the below program?

```
int main()
{
    int i= 10;
    i = ! i > 14;
    printf( "%d", i );
    return 0;
}
```

- a. 1                      b. Runtime error  
c. compilation error              d. 0

Answer: d

Q3. What will be the output of the below program?

```
#include<stdio.h>
int main()
{
    printf("%.0f", 5.89);
    return 0;
}
```

- a. 0      b. 5      c. 6      d. 5.89

Answer: c

Q4. What is the use of void pointer?

- a. Pointer that will not return any value  
b. Address of any variable of any data type can be assigned  
c. Address of void method can be stored  
d. Address of another pointer can be stored

Answer: B

Q5. If malloc() fails to allocate the requested memory, it returns

- a. Null  
b. Garbage Value  
c. Zero  
d. None of the Mentioned

Answer: a

Q6. What will be the output of the below program?

```
#include<stdio.h>
int x = 5;
void main()
{
    int x = 3;
    m();
    printf("%d", x);
}
void m()
{
    x = 8;
    n();
}
void n()
{
    printf("%d", x);
}
a. 3 8    b. 8 3    c. 8 5    d. 8
```

Answer: b

Q7. What will be the output of the below program?

```
#include<stdio.h>
long int fact(int n);
int main()
{
    // missing statment
}
long int fact(int n)
{
    if(n>=1)
    {
        return n * fact( n-1 );
    }
    else
    {
        return 1;
    }
}
a. printf("%l\n",fact(5))    b. printf("%u\n", fact(5))
c. printf("%d\n", fact(5))    d. printf("%ld\n", fact(5))
```

Answer Option : d

Q8. How many times the below loop will be executed?

```
#include<stdio.h>
int main()
{
    int x, y;
    for(x=5;x>=1;x--)
    {
```

```
        for(y=1;y<=x;y++)
        {
            printf("%d\n",y);
        }
    }
a. 15    b. 11    c. 10    d. 13
```

Answer: a

Q9. Which is true?

- a. Local variable is always static
- b. Global variables are equal to auto variable
- c. Both are true
- d. None of the mentioned

Answer: d

Q10. What will happen if in a C program you assign a value to an array element whose subscript exceeds the size of array?

- a. The element will be set to 0.
- b. The compiler would report an error.
- c. The program may crash if some important data gets overwritten.
- d. The array size would appropriately grow.

Answer: d

Q11. What is the difference between declaration and definition of a variable?

- a. Declaration specifies the properties and definition specifies the block of executable statements
- b. Declaration declares a variable& variable definition defines its type
- c. declaration specifies the properties and definition causes the storage to be allocated.
- d. None of the mentioned

Answer: c

Q12. What is the format of conditional operator?

- a. Condition? true\_value: false\_value
- b. Condition! true\_value: false\_value
- c. Condition? false\_value: true\_value
- d. Condition? true\_value: false\_value

Answer: a

Q13. Accessibility of local and global is \_\_\_\_ and \_\_\_\_.

- a. Within the function, Within the block
- b. Within the function, to all functions
- c. Within the block, Within the function
- d. None of the mentioned

Answer: b

Q14. Print a string without using printf() or putchar() function. Which of the following will be used?

**String:** "hello world"

- a. write(1,"hello world",11)
- b. puts("hello world");
- c. system("echo 'hello world'")
- d. All of the mentioned

Answer: d

Q15. What will be the output/error?

```
int main()
{
    int i=5;
    char c='c';
    int sum=i+c;
    printf("%d",sum);
    return 0;
}
a. 104    b. 103    c. Error    d. -121
```

Answer: a

Q16. What is the use of '&amp;' operator in C?

- a. used as pointer
- b. gives the size of the variable
- c. give address
- d. All of the mentioned

Answer: c

Q17. Which one of the following is true?

- a. Local variable is always static
- b. Global variables are equal to auto variable
- c. Both are true
- d. None of the mentioned

Answer: d

Q18. Where are the local variables stored?

- a. Stack
- b. Queue
- c. Heap
- d. Hard disk

Answer: a

Q19. What will be the output/error?

```
int main()
{
    printf("%.0f", 5.89);
    return 0;
}
a. 0    b. 5    c. 6    d. 5.890000
```

Answer: c

Q20. What is the use of void pointer?

- a. Pointer that will not return any value
- b. Address of any variable of any data type can be assigned
- c. Address of void method can be stored
- d. Address of another pointer can be stored

Answer: b

Coding

Q1. Write a Program to print whether the given alphabet is vowel or consonant

**Solution:**

```
#include<stdio.h>
int main()
{
    // Get the character
    char ch;
    scanf("%c", &ch);
    if(ch >= 'A' && ch <= 'Z')
    {
        ch = 'a' + (ch - 'A');
    }
    if(ch == 'a' || ch == 'e' || ch == 'i' || ch == 'o' || ch == 'u')
    {
        printf("Vowel");
    }
    else
    {
        printf("Consonant");
    }
    return 0;
}
```

Q2. Write a program to Check whether a given number is a prime number or not

**Solution:**

```
#include <stdio.h>
#include<math.h>
int main()
{
    int n, i, flag = 0;
    //printf("Enter a positive integer: ");
    scanf("%d",&n);
    for(i=2; i<=sqrt(n); ++i)
    {
        // condition for nonprime number
        if(n%i==0)
        {
            flag=1;
            break;
        }
    }

    if (flag==0)
        printf("%d is a prime number.",n);
    else
        printf("%d is not a prime number.",n);
    return 0;
}
```

Q3. Write a program to change the case of the given alphabet and print.

**Solution:**

```
#include <stdio.h>
int main() {
    char c;
    scanf("%c", &c);
    // Upper to lower case
    if('A' <= c && c <= 'Z')
    {
        printf("%c", 'a' + (c - 'A'));
    }
    // Lower to upper case
    if('a' <= c && c <= 'z')
    {
        printf("%c", 'A' + (c - 'a'));
    }
    return 0;
}
```

Q4. Given an array and a number (say s), find whether any two elements in the array whose sum is "s".

**Solution:**

```
#include<stdio.h>
#include<stdlib.h>
void check_sum_and_dipalay(int arr[], int size, int sum);
int main()
{
    // Get the size of an array
    int size;
    scanf("%d", &size);
    // Get the array elements
    int arr[50], i;
    for(i=0; i<size; i++)
    {
        scanf("%d", &arr[i]);
    }
    // Get the sum value (to check with an array elements)
    int sum;
    scanf("%d", &sum);
    // Function call to check the sum of any two elements in an array
    // equal to given sum
    // and display the same
    check_sum_and_dipalay(arr, size, sum);
    return 0;
}

void check_sum_and_dipalay(int arr[], int size, int sum)
{
    int i,j;
    for(i=0; i<size-1; i++)
    {
        for(j=i+1; j<size; j++)
        {
            if(sum == (arr[i] + arr[j]))
            {
                printf("Perfect couple: %d %d", arr[i], arr[j]);
                exit(0);
            }
        }
    }
}
```

```
}
printf("No perfect couple found!");
}
```

Q5. Write a program to find the most occurring character in the string.

**Solution:**

```
#include <stdio.h>
#define MAX_SIZE 100
#define MAX_CHARS 26
int main()
{
    int i;
    //Get a sentence
    char str[MAX_SIZE];
    scanf("%[^\n]s", str);
    // Init Freq stoting array
    int freq[MAX_CHARS];
    for(i=0; i<MAX_CHARS; i++)
    {
        freq[i] = 0;
    }
    // Frequency of each character is counted
    for(i = 0; str[i] != '\0'; i++)
    {
        int isAlphabet = 0, offset;
        if(str[i] >= 'a' && str[i] <= 'z')
        {
            isAlphabet = 1;
            offset = str[i] - 'a';
        }
        else if(str[i] >= 'A' && str[i] <= 'Z')
        {
            isAlphabet = 1;
            offset = str[i] - 'A';
        }
        if(isAlphabet == 1)
        {
            freq[offset] += 1;
        }
    }
    // If two characters occurred the same number of time then
    // print lowest ASCII value character.
    int max_index = 0;
    for(i=0; i<MAX_CHARS; i++)
    {
        if(freq[i] > freq[max_index])
        {
            max_index = i;
        }
    }
    int max_repeated_char = 'a' + max_index;
    printf("%c", max_repeated_char);
    return 0;
}
```