TCS DIGITAL MODAL QUESTION PAPER

TCS Digital English Questions

Q1. Select the option that is most nearly OPPOSITE in meaning to the word that is underlined.

I really love that movie since it was very **DREADFUL** to watch and I like such movies.

a. Pleasant

b. Atrocious

c. Awful

b. Beastly

Answer: a) Pleasant

Explanation:

'Dreadful' means 'Terrible'

The word opposite to 'terrible' is **Pleasant**.

(Atrocious – Brutal

Awful – Bad

Beastly – Horrible

Thus, all the other three options are synonymous to 'dreadful')

Q2. Rearrange the six sentences A, B, C, D, E, and F in the proper sequence so as to form a meaningful paragraph and answer the question below.

A. You will probably have to sign a form promising to take care of the books.

B. Go to the library and see the clerk to become a member.

C. When you have chosen the books you wish to take home, you take them to the clerk with the tickets.

D. Then you are usually given two or three tickets with your name and address on them.

E. He stamps the book with the date.

F. The clerk keeps the tickets until you return the books.

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Which would be the FIRST sentence in the paragraph?

a. A

b. B

c. C

d. D

e. F

Answer: b) B

Explanation:

The given sentences give the details of procedures to be followed in a library.

The first step must be Statement B. (One has to first go to the library)

By going with the sequence of events, the first step for becoming a member would be to sign a form promising to take care of the books. So, the second statement would be Statement A.

After becoming the member, the membership is acknowledged by giving the tickets. So, the third statement must be Statement D.

Going by the sequence, the next set of statements would be of the order: Statement C, Statement E, and Statement F.

So, the final order is: BADCEF

Thus, the first sentence in the paragraph is '**B**'.

Q3. Directions: The given sentence is divided in parts, select the part which has error in it as the correct answer.

The Vice-President of India and (A)/ the Vice-Chancellor of this university (B)/ have given (C)/ his consent to join the meeting.(D)

a. A

b. B

c. C

d. D

Answer: d) D

Explanation:

Subject of the sentence is: The Vice-President of India and the Vice-Chancellor of this university

This is a plural subject. But the pronoun given is 'his' consent, which is a singular pronoun. So there is a Pronoun Antecedent agreement error in the part D of the sentence.

Q4. Directions: Choose the most appropriate option which can replace the underlined part of the sentence.

A large rise in the number of housing apartments in the coming year should boost new construction dollars by several billion dollars, making the construction industry's economic health much more robust than five years ago.

a. making the construction industry's economic health much more robust than five years ago

b. and make the construction industry's economic health much more robust than five years ago

c. making the construction industry's economic health much more robust than it was five years ago

d. to make the construction industry's economic health much more robust than five years ago

e. in making the construction industry's economic health much more robust than it as five years ago

Answer: c) making the construction industry's economic health much more robust than it was five years ago

Explanation:

Here the units compared are: The construction industry's economic health and Five years ago

We can't compare an industry's health with five years ago. An industry's health can be compared only with **how it was** five years ago. This specification of the industry's health five years ago was given in option c) and hence is the answer.

Q5. Fill in the blank(s).

He wants to stay _____ home on his mother's birthday.

a. at

b. in

c. on

d. with

Answer: a) at

Explanation:

'Home' is a very specific location. In the case of very specific information, the preposition of place to be used is 'at'.

Q6. Choose the correct preposition/ prepositional phrase from the options to fill in the blank.

Telecare is a telephone support service in the US which provides contact with people who are alone and isolated ____ they are aged or have disabilities.

a. in contrast to

b. because

c. on the other hand

d. despite

Answer: b) because

Explanation:

The part following the blank gives the reason for the action given in the part preceding the blank. In order to specify reasons, the correct preposition to be used is 'because'.

Q7. Fill in the blank(s).

Nowadays people _____ text messages instead of phoning.

a. send

b. will be sending

c. sent

d. are sending

Answer: d) are sending

Explanation:

From the part 'instead of phoning' it is understood that the action specified by the word to be fitted on the blank is in contrast to the earlier conventional action of 'phoning'. The new actions which are in contrast to conventional actions are to be represented in present continuous tense. This required verb form is given only in option d) and hence the answer.

Q8. Fill in the blank(s).

If Jack _____, they would probably win.

a. played

b. had played

c. plays

d. was playing

Answer: c) plays

Explanation:

The given sentence is a conditional statement. Here the main clause is given in future tense (would win). So the conditional clause should be represented is present tense. One such verb form is given only in option c) and hence the answer.

Q9. Fill in the blank(s).

I wish we could sell the grand piano; it _____ too much space here.

a. takes out

b. takes up

c. takes on

d. takes off

Answer: b) takes up

Explanation:

Take out means Obtain service

Take up means Occupy

Take on means Become very upset

Take off means Succeed

The meaning that logically fits the blank is 'occupy'. The grand piano **occupies** too much space. Hence the answer is option b) takes up.

Q10. Fill in the blank(s).

The people ought to learn their lesson. They should not _____ all the promises made by politicians.

a. fall in

b. fall at

c. fall for

d. fall into

Answer: c) fall for

Explanation:

Fall in – Take one's place in a military formation

Fall at – There is no such phrasal verb

Fall for – Trust

Fall into – To be caught in a trap

The meaning that logically fits the blank is 'trust'.

They should not **trust** all the promises made by politicians.

Hence the answer is option c) fall for

TCS DIGITAL MODAL QUESTION PAPER

TCS Digital Quantitative Aptitude Questions

Q1.

32 times of a two digit number is 23 times the number obtained by reversing its digit. The sum of its digit is 15 Find the number:

A. 96

B. 69

C. 87

D. Insufficient Information

Answer: B

Explanation:

Let the number be 10a + b

Reverse of the number = 10b + a

32(10a + b) = 23(10b + a)

--> 320a + 32b = 230b + 23a

--> 297a = 198b

--> a/b = 6/9 = 2/3

--> a = 2/3b ---(1)

a + b = 15 ---(2)

--> 2b/3 + b = 15

--> 5b = 45

--> b = 9

--> a = 6

Q2.

Eesha's father was 34 years of age when she was born. Shashank (younger brother of Eesha), is 13 years old and he is very proud of the fact that he is as tall as Eesha, even though he is three years younger than her. Eesha's mother, who is shorter than Eesha was only 29 when Shashank was born . What is the sum of the ages of Eesha's parents now?

A. 92 years

B. 76 years

C. 66 years

D. 89 years

Answer: A

Explanation:

Age difference of Eesha and her father = 34

Age difference of Shashank and his mother = 29

Eesha's current age = Shashank's age + 3

Eesha's current age = 16

Eesha's father's age = 34 + 16 = 50

Eesha's mother's age = 13 + 29 = 42

Sum of parents ages = 50 + 42 = 92 years

Q3.

Apples cost L rupees per kilogram for the first 30 kilograms and Q rupees per kilogram for each additional kilogram. If the price paid for 33 kilograms of apples is Rs. 1167 and for 36 kilograms of apples is Rs. 1284, then the cost of the first 10 kilograms of apples is:

A. Rs. 117

B. Rs. 1053

C. Rs. 350

D. Rs. 281

Answer: C

Explanation:

Cost of 33 kilograms of apples = Rs. 1167

Cost of 36 kilograms of apples = Rs. 1284

3 kilograms of apples cost (after 30kg) = 1284 – 1167 = Rs. 117

Cost of 30 kilograms of apples = 1167 – 117

= Rs. 1050

Cost of 10 kilograms of apples = 1050/ 30 x 10

= Rs. 350

Q4.

In this question x^y stands for x raised to the power y. For example, 2^3 = 8 and 4^1.5 = 8. If a, b are real numbers such that a + b = 3, a^2 + b^2 = 7, the value of a^4 + b^4 is?

A. 49

B. 45

C. 51

D. 47

Answer: D

Explanation:

(a + b)^2 = a^2 + b^2 + 2ab

9 = 7 + 2ab

--> ab = 1

(a+b)^4 = [(a+b)^2]^2

(a+b)^4 = [a^2 + b^2 + 2ab]^2

--> 81 = a^4 + b^4 + 4*a^2*b^2 + 2a^2*b^2 + 4ab(a^2 + b^2)

--> 81 = a^4 + b^4 + 4 + 2 + 4(7)

a^4 + b^4 = 81 – 28 – 2 - 4 = **47**

Q5.

A 70 foot pole stands vertically in a horizontal plane supported by three 490 foot wires, all attached to the top of the pole, pulled up and anchored to three equally spaced points in the plane. How many feet apart are any two of those anchor points?

A. 740

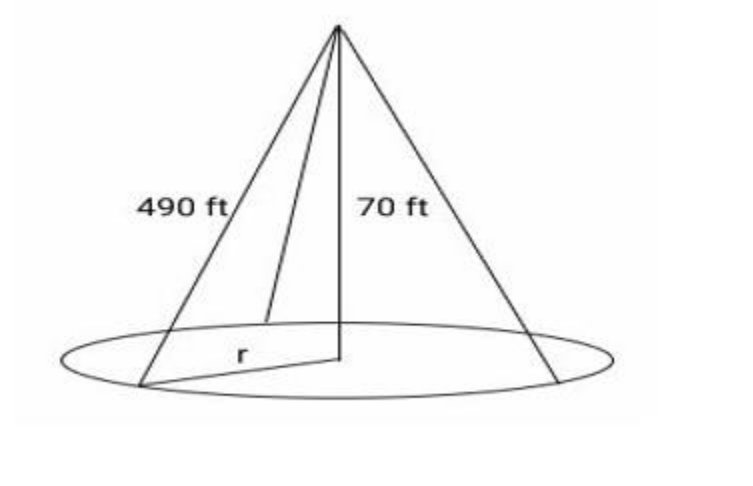
B. 840

C. 960

D. 1024

Answer: B

Explanation:



The wires will be equally space at the circumference of a circle in the plane as shown in the figure above.

The three points will form an equilateral triangle, with the sides of the triangle equal to the shortest distance between the points.

Let the side of the triangle be ‘a’.

‘r’ is the radius of the circum-circle of the given triangle

Thus, $a = \sqrt{3}\, r$ ---(1)

Now,

$490^2 = r^2 + 70^2$

$r^2 = 70^2(7^2 - 1)$

$r^2 = 70^2(48)$

$r = 70(4\sqrt{3}) = 280\sqrt{3}$, putting in (1)

$a = \sqrt{3} * 280\sqrt{3}$

= 840 ft = distance between the points

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TCS Digital Advanced Coding Questions

Q1

Write a program to find the count of numbers which consists of unique digits.

Input:

Input consist of two Integer lower and upper value of an range

Output:

Output consists of single line, print the count of unique digits in given range. Else Print"**No Unique Number**"

Solution:

```
#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++;
    }
    if(count>0)
     cout<<count;
    else
        cout<<"No Unique Number";
}

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

Q2

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There is a range given n and m in which we have to find the count all the prime pairs whose difference is 6. We have to find how many sets are there within a given range.

Output:

Output consists of single line, print the count prime pairs in given range. Else print"**No Prime Pairs**".

Constraints:

2<=n<=1000

n<=m<=2000

Sample Input:

4

30

Output:

6

Explanation:

(5, 11) (7, 13) (11, 17) (13, 19) (17, 23) (23, 29) . we have 6 prime pairs.

Solution:

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

void count_prime(int l, int r)
{
   int count=0;
   bool prime[r + 1];
```

```
    memset(prime, true, sizeof(prime));

    for (int p = 2; p * p <= r; p++) {
        if (prime[p] == true) {
            for (int i = p * 2; i <= r; i += p)
                prime[i] = false;
        }
    }
    for (int i = l; i <= r - 6; i++)
        if (prime[i] && prime[i + 6])
            count++;

    if(count>0)
        cout<<count;
    else
        cout<<"No Prime Pairs";
}

int main()
{

    int n,m;
    cin>>n>>m;
    count_prime(n, m);
    return 0;
}
```

Q3.

TCS DIGITAL MODAL QUESTION PAPER

Write a program to print all the combinations of the given word with or without meaning (when unique characters are given).

Sample Input:

abc

Output:

abc

acb

bac

bca

cba

cab

Solution:

```
#include<bits/stdc++.h>
using namespace std;
void permute(string a, int l, int r)
{
   if (l == r)
      cout<<a<<endl;
   else
   {
      for (int i = l; i <= r; i++)
      {
         swap(a[l], a[i]);
         permute(a, l+1, r);
```

```
            swap(a[l], a[i]);
        }
    }
}
int main()
{
    string str;
    cin>>str;
    int n = str.size();
    permute(str, 0, n-1);
    return 0;
}
```

Q4.

Bastin once had trouble finding the numbers in a string. The numbers are distributed in a string across various test cases. There are various numbers in each test case you need to find the number in each test case. Each test case has various numbers in sequence. You need to find only those numbers which do not contain 9. For eg, if the string contains "hello this is alpha 5051 and 9475".You will extract 5051 and not 9475. You need only those numbers which are consecutive and you need to help him find the numbers. Print the largest number.

Note: Use long long for storing the numbers from the string.

Input:

The first line consists of **T** test cases and next **T** lines contain a string.

Output:

For each string output the number stored in that string if various numbers are there print the largest one. If a string has no numbers print -1.

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Constraints:

1<=**T**<=100

1<=**|S|**<=10000

Example:

Input:

1

This is alpha 5057 and 97

Output:

5057

Solution:

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

int main()
{
 int t;
 cin >> t;
 cin.ignore();

 while(t--)
 {
  string s;
  getline(cin, s);
  int n = s.length();
  int n9 = 0;
```

```
string res="", num = "";
for(int i = 0; i < n; i++)
{
  n9 = 0;
  num = "";
  while(s[i] >= '0' && s[i] <= '9')
  {
    if(s[i] == '9')
      n9 = 1;

    num = num + s[i];
    i++;
  }

  if(!n9 && num != "")
  {
    long long a = stoll(num);
    long long b = -1;

    if(res != "")
      b = stoll(res);

    if(a> b)
      res = num;
  }
}
if(res == "")
  cout << "-1";
else
```

```
    cout <<res << endl;
  }
  return 0;
}
```