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Q No 1. What is the code of “for loop” to add the n even number in JavaScript?

```
<script>
function add(x)
{
return x%2==0;
}
function findsum(y)
{
let sum=0;
for( var i=1; var<=y; i++)
if(add(i))
{
sum+=i;
}
}
document.write(findsum)
</script>
```

Q No 2. What are the five types of HTML? 5 marks

Five types of html in use:

1. HTML 4.01 Transitional
2. HTML 4.01 Strict
3. XHTML 1.0 Transitional
4. XHTML 1.0 Strict
5. HTML5

Q No 3. How to define binary resource and what are the categories of binary resources in WPF? 3 marks

Binary resources are what rest of .net framework considers a resource. To define a binary resource, add a file and set the build action resource or content (loose file).

Binary resource has two categories

Binary resource can be embedded to assembly

Binary resource can be loose file that may or may not be known at compile

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time. It can be localizable or not.

Q No 4. Write the properties of touch point in C#. 3 marks

The properties of Touchpoint are Position, Size, Bounds, touchdevice, Action (Down, Up, Move).

Q No 5

What will be the output of the code. Async void displayprimecounts()

```
{  
For (int i = 0; i < 10; i++)  
Console.WriteLine(await getprimescountasync(i) } 5 marks
```

It is a code of UI that remains the CPU bound task. The given Code is in For Loop. firstly you call the getprimescountry is given that the controls return and the Remaining code will go into the Continue. and You have called the await the from inside the LOOP.

Q No 6 Create a single instance application using WPF. 5 marks

Single instance application means that it should be run only one time.

```
bool mutexisNew;  
using (System.Threading.Mutex m = new System.Threading.Mutex(true,  
uniquename, outmutexisNew))  
{  
if (mutexisNew)  
// This is the first instance. Run the  
application. Else  
// There is already an instance running. Exit!  
}
```

Q No 7 Write the XAML code to create a list box with three items. 5 marks

```
<listbox xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation">  
<listbox.Items>  
<listboxitem Content="Item 1"/>  
<listboxitem Content="Item 2"/>  
<listboxitem Content="Item 3"/>
```

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</listbox.Items>

</listbox>

Q No 8 What is the purpose of Block in Objective-C. 3 marks

Blocks are a language-level feature added to Objective-C, which allow you to create distinct segments of code that can be passed around to methods or functions as if they were values. Blocks are Objective-C objects, which means they can be added to collections like NSArray or NSDictionary.

Q No 9 Define the Data template using XAML? 3 marks

Data template is a bit of XAML that describes how bound data is displayed. A data template can contain elements that are each bound to a data property along with additional markup that describes layout, color and other appearance.

Q No 10 Differentiate between Get and Post Method. 3 marks

In GET method, values are visible in the URL. In POST method, values are not visible in the URL. GET has a limitation on the length of the values, generally 255 characters. POST has no limitation on the length of the values since they are submitted via the body of HTTP.

GET results can be bookmarked. POST results cannot be bookmarked. GET Parameters remain in web. In Post Parameters are not saved in web.

Get method supports only string data types. Post This method supports different data types, such as string, numeric, binary, etc.

Q No 11 Define iOS language feature block also write its syntax. 3 marks

Block is a **chunk of code that can be executed at some future time**. Blocks are first-class functions, which is a fancy way of saying that Blocks are regular Objective-C objects. Since they're objects, they can be passed as parameters, returned from methods and functions, and assigned to variables.

The syntax to define a block literal uses the caret symbol (^), like this:

```
^{ NSLog(@"This is a block"); }
```

Q No 12. Write the difference between onetime binding and onewayTo Source binding. Also give example of both in XAML.

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In **one time binding**, control value is updated only when the application is initialized. This means you cannot change the value from source to control; as for changing the value, you have to write code in code behind file, so that you can change value from the back-end programming. In **One way to source binding**, target control updates the source control, which means if you change the value of the target control, it will update the value of the source control. It is just the opposite to One way binding.

one time binding Example

```
txtvalue.Text = "50";  
mySlider.Value = Convert.ToInt32(txtvalue.Text);
```

One way to source binding Example

```
<TextBox Name="txtvalue" Text="{Binding ElementName=myCS411,  
Path=Value, Mode=OneWayToSource,  
UpdateSourceTrigger=PropertyChanged}">  
</TextBox>
```

Q No 13 Give the structure of protocols in Objective-C.

Objective-C allows you to define protocols, which declare the methods expected to be used for a particular situation. Protocols are implemented in the classes conforming to the protocol.

A simple example would be a network URL handling class, it will have a protocol with methods like processCompleted delegate method that intimates the calling class once the network URL fetching operation is over.

A syntax of protocol is shown below.

```
@protocol  
ProtocolName  
@required  
// list of required  
methods@optional  
// list of optional  
methods@end
```

Q No 14 Write steps to talk to a webserver while using AJAX.

1. Specify the HTTP method (such as POST or GET).

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2. Provide the URL of the server-side resource to be contacted.
3. Let the XHR (xml http request) instance know how it can inform you of its progress.
4. Provide any body content for requests such as POST.

Q No 15 Given below in XAML code for stack panel.

```
<stack panel> </stack panel>
```

You are required to modify the given code to give the stack panel gradient background. Use three colors in gradient.

```
<lineargradientbrush x:Key="backgroundbrush" startpoint="0,0" endpoint="1,1">  
<gradientstop Color="Blue" Offset="0"/>  
<gradientstop Color="White" Offset="0.5"/>  
<gradientstop Color="Red" Offset="1"/>  
</lineargradientbrush >
```

Q No 16 Why we need concurrency in our application?

Any circumstance under which an object interrupts the processing of a message to process another opens the possibility of race conditions and, thus, requires the use of concurrency controls so concurrency is More than one thing happening at the same time.

We need concurrency for comparison of events. We need concurrency for

Responsive user interface

We need concurrency to handle

Simultaneous requests We need concurrency in Parallel programming.

Q No 17 Write XAML code which rotate the button at the angle of 90 degrees.

```
<Button>  
Button.rendertransform>  
<transformMyButton>  
<rotatettransform Angle="90"/>  
</transformMyButton >  
</Button.rendertransf  
orm >OK  
</Button >
```

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Q No 18 Consider the XAML code

```
<TextBox Name= "txt1"></TextBox>
```

```
<Button Name= "btn1"></Button>
```

Modify the given code so, whatever the text is written inside textbox it is automatically written as Button text.

Note: - Modify the XAML code only do not write C# code.

```
<TextBox Name= "txt1">txt1</TextBox>
```

```
<Button Name= "btn1">btn1</Button>
```

Q No 19 Differentiate the need of Binding and Command in WPF.

Data binding is a mechanism in WPF applications that provides a simple and easy way for Windows Runtime apps to display and interact with data.

The command is the action to be executed. The command source is the object which invokes the command. The command target is the object that the command is being executed on. The command binding is the object which maps the command logic to the command.

Q No 20 Which type of information is provided in following windows properties in WPF?

a) Owner b) OwnedWindows

The owner property contains the information of parent window while OwnedWindows contains the information about the list of child window.

Q No 21 Define the term "Retain Cycle" in Objective-C.

Retain Cycle is the condition When 2 objects keep a reference to each other and are retained, it creates a retain cycle since both objects try to retain each other, making it impossible to release. For example a situation in which object "First" retains object "Second", and object "Second" retains object "First" at the same time.

Q No 22 Write the names of data binding modes in WPF.

Binding Mode can be

Oneway, Twoway, Onewaytosource, Onetime

Q No 23 Identify application commands and component command.

i) Close ii) Find iii) Selecttoend d) help e) MoveRight

Application

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commands Close,

Find and Help

Component command

MoveRight and

Selecttoend

Q No 24 What are three steps of implementing parallelism. Also differentiate between Data and Task parallelism.

Data Parallelism means that we may have a lot of data on which we want to do the same operation. In task parallelism, we may have a lot of tasks, which we have to do in parallel, which are different tasks. In Data parallelism we do the same task on data which is the easiest kind of parallelism. All the tasks will start from one point in data parallelism. In task parallelism different tasks will start at different points and end on different points.

There are three steps while implementing parallelism.

1. Partition your Problem
2. Process your partition
3. Combine the Result.

Q No 25 What are the two possible destinies for object marked as auto release using object-C. Also declares an object as autorelease.

Auto release is another message that we can send to an object. Auto release is like saying to the object that I no longer want to hold the reference to this object but don't delete this object immediately. Auto release solves the problem that when you want to return something but do not want to hold the reference.

Retain and release are the two possible destinies for object marked as onto release using object-C. The deallocation is only done by the object itself in Object-C.
Nsubject *x = [[[nsubject alloc] init] autorelease];

Q No 26 What do you mean by Dangling pointer and memory leak?

Dangling pointer means that we have allocated some memory and then we freed that memory but the pointer is still pointing at the same place. Memory leaks means that we allocate some memory, we have a pointer pointing to it, and then we make the pointer point to somewhere else. Now you have no pointer to this allocated memory.

Q No 27 Write the difference between one way and two way data Binding

One way

The target is updated whenever the source changes.

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Two way

A change to either the target or source updates the other. One way to source

This is the opposite of one way. The source is updated whenever the target changes. One-time

This works just like one way, except changes to the source are not reflected at the target. The target retains a snapshot of the source at the time the Binding is initiated.

Q No 28 Can the operating system distinguish between window with WPF content and window win32 content?

No, operating system cannot distinguish between window with WPF content and window win32 content. We can even create Host WPF content in a Win32 window, with this technique; we can use the advanced graphics capabilities of WPF within the framework of a standard Win32 window and application. We can also host a Win32 window in WPF content, with this technique you can use an existing custom Win32 control in the context of other WPF content, and pass data across the boundaries.

Q No 29 Which element must be added to the project file to specify a default culture for resources and automatically build an appropriate satellite assembly.

UICulture must be added to the project file to specify a default culture for resources and automatically build an appropriate satellite assembly

Q No 30 Write the difference between interface and class. 3 marks

A class is a blueprint from which we can create objects that share the same configuration - properties and methods. An interface is a group of related properties and methods that describe an object, but neither provides implementation nor initialization for them.

Q No 31 How can we create objects in objective-C? also provide syntax. 3 marks

In objective-C we send a message to the object. Calling the method on the object is same as sending a message to the object. In objective-C first we allocate by using keyword alloc and then we call the constructor.

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```
NSMutableArray *arrayInstance =  
[NSMutableArray alloc]; [arrayInstance init];  
NSMutableArray *arrayInstance = [[NSMutableArray alloc] init];  
message = [receiver selector  
arguments] [arrayInstance  
addObject:anotherobject];
```

Objective-C is a thin layer atop C and is a "strict superset" of C, meaning that it is possible to compile any C program with an Objective-C compiler and to freely include C language code within an Objective-C class.

Objective-C derives its object syntax from Smalltalk. All of the syntax for non-object-oriented operations (including primitive variables, pre-processing, expressions, function declarations, and function calls) are identical to those of C, while the syntax for object-oriented features is an implementation of Smalltalk-style messaging.

Q No 32 Write any two design Goals for JQuery?

GOALS of JQUERY:

- It will reduce the developer time
- DOM Manipulation is so easy.
- Write code in One Line.

Q No 33 Write the names of command library classes?

- **Application commands**
- **Component commands**
- **Media commands**
- **Navigation commands**
- **Editing commands**

Q No 34 How we can create & started a new thread? write code create start a thread. 5marks

```
Class threadtest  
{  
Static void Main()  
{  
Thread t = new
```

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```
Thread(writy);T.Start();
For (int i = 0; i < 1000; i++) Console.Write("x");
}
Static void writy()
{
For (int i = 0; i < 1000; i++) Console.Write("y");
}
}
```

Q No 35 List three commands define by “Icommand” interface.

icommand defines Execute, canexecute, canexecutechanged as a Command.

Q No 36 Write an equivalent C# code using task combinatory (ignore the exception)

```
Task task1= Delay1();
Task task2= Delay2();
Task task3= Delay3();
Await task1;
Await task2;
Await task3;
```

```
Task Task1= Task.Run(= {thrown null;});
Task Task2= Task.Run(= {thrown null;});
Task all= task.whenall(Task1 ,Task2);
try(Awaitall)
```

Q No 37 Write a function in JavaScript that will add ten even numbers using a for loop.

```
<html>
<body>
<script type= “text/javascript”>
<!--
var
a=1;
var
sum=0;
for(a=1;a<=10; a++)
```

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```
{  
If(a%2=  
=0)  
{sum=sum+a}  
}  
document.write(sum);  
//-->  
</script>  
</body>  
</html>
```

Q No 38 What are the three major types in JavaScript? 3 marks

JavaScript allows you to work with three primitive data types: numbers, strings of text (known as “strings”), and boolean truth values (known as “booleans”).

Q No 39 Consider the following code lines and explain what we are trying to achieve from them. 5 marks

Msbuild/t:updateuid

Projectname.csproj.locBaml/parse

Projectname.g.en-US .resources/out.en-US.csv

Running this gives every object element in every XAML file in the project on x:Uid directive with a unique value and LocBaml /parse ProjectName.g.en-US.resources /out:en-US.csv, this generate a simple .csv file containing all the property values you should need to localize.

or

We are trying to localize the element using Uid directive. Here updateuid will specify the files, which are needed to be localized, so updateuid will give Uid to all XAML file after searching it from csproj file. Then locBaml will convert it to string resources to out.en-US.csv file. All the strings will accumulate in comma-separated file. Now we can convert it to any new language satellite assembly by locBaml /generate.

Q No 40 Separate server side language and Client side language.

(3Marks) Server side language

PHP, ASP.net, Cold Fusion, Ruby, Python, JAVA, C#, C++ are server side languages.

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Client side language

JS(Java Script), CSS, HTML are Client side languages.

Q No 41 What is the purpose of the following objective-C

```
codeNSData *imageData = [NSURLconnection
```

```
sendSynchronousRequest:urlRequest
```

```
ReturningResponse:nil
```

```
error:&downloadError
```

```
r];
```

The given code is used to download data. Sendsynchronousrequest is used as a function of Nsurlconnection to download data. As there could come an error in downloading data so we havemake a variable name downloadError. If ReturningResponse is nil than data will be downloaded otherwise error message will display on screen.

Q No 42 Write C# code which navigate to URI using the Navigate Method.

Navigate to a page via a URI

```
This.navigationservice.Navigate(new Uri("photopage.xaml", urikind.Relative));
```

Q No 43 Explain at-least two memory management problems using

Objective-C Memory leak and Dangling pointer are the two main memory management problem using objective-C. In Objective-C all objects are created on the heap, this means objects continue toconsume memory until they're explicitly deallocated. They are not cleaned up automatically when the code that uses them goes out of scope. If our application loses all references (pointers)to an object but doesn't deallocate it first, the memory it consumes is wasted. This waste is typically called a memory leak, and if your application has too many memory leaks, it becomessluggish due to running out of available memory. If we deallocate an object too early and then reference it again, our application could crash or exhibit incorrect and random behavior.

Q No 45 AJAX is the interaction of which type of technology? Name them.

Ajax is made up of the following technologies:

- XHTML and CSS for presenting information
- Document Object Model (DOM) for dynamically interacting with and displaying thepresented information

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- XMLHttpRequest (XHR) object to manipulate data asynchronously with the web server.

Q No 46 When manipulationDelta event is raised in WPF touch events?

Also mention the name of manipulation delta event properties.

In this Method First Fingers TouchDown, Deltas TouchMove and after completed Touch Up.

Manipulationdelta class has properties, Translation, Scale, Rotation and Expansion.

Q No 47 What is the purpose of using navigation in pages, mention 5 ways to perform navigation.

The Main Purpose of Navigation that allows us to Move from one Page to another page.

NAME:

Browseback, browseforward, browsehome, browsesstop, Favorites, firstpage, gotopage, lastpage, nextpage, previouspage, Refresh, Search, Zoom are different way to perform navigation.

Q No 48 Write the event properties of JQuery of PageX and PageY, ScreenX and ScreenY.

PageX is the distance (in pixels) of the mouse pointer from the left edge of browser window. PageY is the distance (in pixels) of the mouse pointer from the Top edge of browser window. ScreenX is the distance (in pixels) of the mouse pointer from the left edge of monitor.

ScreenY is the distance (in pixels) of the mouse pointer from the Top edge of monitor.

Q No 49 Write name of main method available in dispatcher class of C#

System.Windows.Threading is the main method available in dispatcher class of C# BeginInvoke(Delegate, DispatcherPriority, Object[])

Q No 50 What does it means

[Locationmanager setdistanceFilter:kcldistancefilternone];

Above code means that we want all results from the location manager

Q No 51 Give the syntax to hide all <p> tags in html using JS and JQuery.

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IN JQUERY:

```
$(document).ready(function(){  
  $("#btn").click(Function(){  
    $("p").hide();  
  });  
});
```

IN JS:

```
$(selector).hide(speed, easing, callback)
```

Q No 52 Explain Automatic looping and chaining function with example in JQuery.

JQuery enable us to change the tag by using looping. So JQuery provide us automatic looping. JQuery provide us functions that are applied to all the elements of JQuery Selection object. First, we make selection and then apply it on the all elements. We can perform multiple operation after selection and is called chaining function. JQuery does not return any DOM list but it give us special selection object on which we can apply different function and it applies on all the selection and it is called automatic looping. Chaining means that a function can be chain means we can call function one after the other.

Automatic Looping Example

```
$( '#slideshow img' ).hide();
```

In this example it will hide all the elements which came under above selection.

Chaining Function Example

```
$( '#popup' ).width(300).height(300);
```

Q No 53 Define “dealloc msg” and who is responsible for sending message in objective-C?

dealloc is called as a result of memory management. Once an objects "retainCount" reaches 0 then a dealloc message is automatically sent to that object

Q No 54 How we can convert Synchronous method into asynchronous in C# 5.0?

We can convert Synchronous method into asynchronous in C# 5.0 by inserting some special keywords like await and async. Async will tell the compiler that we will use await key word. var result= await expression; statement(s);

await will call the getawaiter of the expression and when the awaiter complete its work then

Q No 55 What are manipulation events? When does it work?

Manipulation events are manipulationstarting and manipulationstarted, manipulationdelta, manipulationcompleted. We combine information from multiple events. Manipulation events work if ismanipulationenabled=true on this

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or a parent and basic events not handled.

Q No 55 What is static and dynamic resources.

Static Resources retrieved once by referencing element and used for the lifetime of the resources. Whereas, Dynamic Resources retrieve every time they are used. The downside of Dynamic resources is that they tend to decrease application performance. Dynamic resource reapplied every time it changes nothing special about the resources. Dynamic use more overhead but demand loaded. Dynamic can only be used to set dependency property. Static can even abstract whole controls. In case of dynamic resource, we actually subscribe to the updates of the source, if the source changes, dynamic resource will also change. In static resource we use the value only one time. Static cannot do a forward difference.

Q No 57 How can we prevent a window from automatically being activated.

When a window with its Show Activated property set to false is opened, the window is not activated and its Activated event is not raised until a user manually activates the window by selecting it. After the window is selected, it activates and deactivates normally.

Q No 58 Write the code so that the style of paragraph will be same in CSS

```
<p class="paragraph-one">
```

```
    JUNAID MALIK
```

```
</p>
```

```
<p class="paragraph-two">
```

```
    JUNAID MALIK
```

```
</p>
```

```
<p class="paragraph-three">
```

```
    JUNAID MALIK
```

```
</p>
```