Programming Ability (Event-III) -DOTNET

National Crime Records Bureau, East Block-7, R.K. Puram, Delhi 110066

SlNo	Question	Option A	Option B	Option C	Option D	Answer	Max Marks	Negative Marks

1	You are required to print the negative number into brackets instead of minus sign (e.g., -3998 is (3998)). Let a=-3998	`<pre> if (a < 0){`
		`    Label1.Text = "(" + (a-(2*a)).ToString() + ")";`
		`    }`
		`</pre>`
			`<pre>if (a < 0){`
			`Label2.Text = "(" + Math.Abs(a).ToString() + ")";`
			`    }</pre>`
				`<pre>if (a < 0){`
				`Label2.Text = a.ToString().Replace("-", "(") + ")";`
				`    }</pre>`
					All of the above	D	2	0.5

2	Consider the following table created in MSSQL server 2008: TblTrn_DMT(Name, Desgnation, DateOfJoining, Remarks), all columns having nvarchar(100) datatype. You are required to fetch records having DateOfJonining less than and equal to '03/12/2016'. Record Should be in descending order by DateOfJonining. Which one is correct:	SELECT * FROM [TblTrn_DMT] where DateOfJoining<'04/12/2016' order by DateOfJoining DESC;	SELECT * FROM [TblTrn_DMT] where CONVERT((DateTime, DateOfJoining,108)<='03/12/2016' order by CONVERT(DateTime, DateOfJoining,108) DESC;	SELECT * FROM [TblTrn_DMT] where DateOfJoining <='03/12/2016' order by CONVERT(Date, DateOfJoining,108) DESC;	SELECT * FROM [TblTrn_DMT] where CONVERT(DateTime, DateOfJoining,103) <= CONVERT (DateTime, '03/12/2016',103) ORDER BY CONVERT(DateTime, DateOfJoining,103) DESC;	D	4	1
3	You are designing a distributed application.The application must store secure information that is specific to an individual user. The data must be automatically purged when the user logs off. You need to save transient information in a secure data store. Which data store should you use?	Session state	Database storage	Profile properties	Application state	B	2	0.5
4	You are developing an ASP.NET MVC application that supports multiple cultures and multiple languages. The application will be sold to international customers. The ASP.NET MVC application must store localized content in satellite assemblies for multiple languages. You need to generate the satellite assemblies during an automated build. Which tool should you use?	Gacutil.exe	Al.exe	Ildasm.exe	nasm.exe	B	2	0.5

5	ASP.NET, Consider a Table having two column namely "Name of Criminal" , "No of fir registered" as below
	<img src="../images/TableCriminal.png" alt="TableCriminal" height="197" width="337">
	
	it is required that the this to be implementd in GridView and the column "No of fir registered" must have different backgroud color based on given criteria.
	if No of fir registred between 0-10 backgroud color of the cell must be Green
	if No of fir registred between 11-15 backgroud color of the cell must be Yellow
	if No of fir registred between 16-20 backgroud color of the cell must be Red
	
	Choose the best option to do the same.
	
		`<pre>`
		`Protected Sub OnRowDataBound(sender As Object, e As GridViewRowEventArgs)`
		`    Dim cell As TableCell = e.Row.Cells(1)`
		`    Dim quantity As Integer = Integer.Parse(cell.Text)`
		
		`    If NoOfFirReg>=0 AndAlso NoOfFirReg<= 10 Then`
		`        cell.BackColor = Color.Green`
		`    End If`
		`    If NoOfFirReg>=11 AndAlso NoOfFirReg<= 15 Then`
		`        cell.BackColor = Color.Yellow`
		`    End If`
		`    If NoOfFirReg>= 16 AndAlso NoOfFirReg<= 20 Then`
		`        cell.BackColor = Color.Red`
		`    End If`
		
		`End Sub`
		`</pre>`
			`<pre>`
			`Protected Sub OnRowDataBound(sender As Object, e As GridViewRowEventArgs)`
			`    If e.Row.RowType = DataControlRowType.DataRow Then`
			`        Dim cell As TableCell = e.Row.Cells(1)`
			`        Dim quantity As Integer = cell.Text`
			
			`        If NoOfFirReg>=0 AndAlso NoOfFirReg<= 10 Then`
			`            cell.BackColor = Color.Green`
			`        End If`
			`        If NoOfFirReg>=11 AndAlso NoOfFirReg<= 15 Then`
			`            cell.BackColor = Color.Yellow`
			`        End If`
			`    else`
			`            cell.BackColor = Color.Red`
			`    End If`
			`End Sub`
			`</pre>`
				`<pre>`
				`Protected Sub OnRowDataBound(sender As Object, e As GridViewRowEventArgs)`
				`    If e.Row.RowType = DataControlRowType.DataRow Then`
				`        Dim cell As TableCell = e.Row.Cells(1)`
				`        Dim quantity As Integer = Integer.Parse(cell.Text)`
				
				`    If NoOfFirReg>=0`
				`    If NoOfFirReg<=10`
				`        cell.BackColor = Color.Green`
				`    Else`
				`    If NoOfFirReg<16`
				`        cell.BackColor = Color.Yellow`
				`    Else`
				`    If NoOfFirReg>15 AndAlso NoOfFirReg<=20`
				`        cell.BackColor = Color.Red`
				`    End If`
				`    End If`
				`    End If`
				`    End If`
				`End Sub`
				`</pre>`
					`<pre>`
					`Protected Sub OnRowDataBound(sender As Object, e As GridViewRowEventArgs)`
					`    If e.Row.RowType = DataControlRowType.DataRow Then`
					`        Dim cell As TableCell = e.Row.Cells(1)`
					`        Dim quantity As Integer = cell.Text`
					
					`    If NoOfFirReg>=0`
					`    If NoOfFirReg<=10`
					`      cell.BackColor = Color.Green`
					`    Else`
					`    If NoOfFirReg<=15`
					`      cell.BackColor = Color.Yellow`
					`    Else`
					`    If NoOfFirReg>=16 AndAlso NoOfFirReg<20`
					`      cell.BackColor = Color.Red`
					`    End If`
					`    End If`
					`    End If`
					`End Sub`
					`</pre>`
						C	4	1

6	You have multiple resource files like (Resource.hi-IN.resx, Resource.en-GB.resx etc.). How you will access the resource to display in page "ShowRes.aspx". Consider the following code: <img src="../images/code.png" alt="database" height="500" width="1000"> 	`<pre> "<%$Resources:Resource,name column of resource file %>" </pre>`	`<pre> "<%$Resources:Resource,key column of resource file %>" </pre>`	`<pre> "<%$Resources:Resource,<% Session["Culture"].key %>" </pre>`	`<pre> "<%$Resources:Resource.Selected.key%>" </pre>`	A	4	1
7	You are developing an ASP.NET MVC application. The application must allow users to enter HTML in a feedback text box only. You need to disable request validation. What should you do?	Use the HttpRequest.Form property to read the unvalidated form value	Apply and set the ValidateInput attribute on the controller action to FALSE	Use the HttpRequest.Unvalidated property to read the unvalidated form value	Apply and set the CausesValidation attribute on the controller action to FALSE	C	2	0.5

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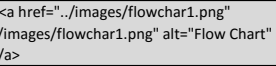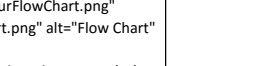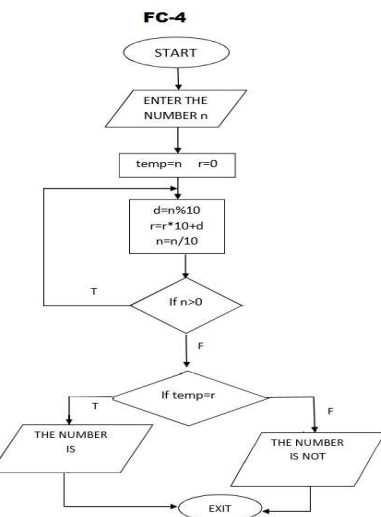| SlNo	Question	Option A	Option B	Option C	Option D	Answer	Max Marks	Negative Marks
8	You are developing an ASP.NET MVC application. The application is deployed in a web form and is accessed by many users. The application must handle web server failures gracefully. The servers in the form must share the short-term state information.You need to persist the application state during the session. What should you implement?	ASP.NET session state	A local database	A state server	Profile properties	C	2	0.5
9	Which state object accessible to any user in Web application.	Session	Application	Response.Cookies	Response.ViewState	B	2	0.5
10	.MapPath will return	Returns the Virtual Path of the web folder	Maps the specified virtual path to Physical path	Returns the physical file path that corresponds to virtual specified path	All the above	C	2	0.5
11	`<pre>` Dim strOriginal = "She sells sea shells on the seashore" Dim srchString As String = "sea" Dim rex As System.Text.RegularExpressions.Regex = New System.Text.RegularExpressions.Regex(srchString) Dim count As Integer = rex.Matches(strOriginal).Count Response.Write(srchString & " occurs " & count & " times") `</pre> ` What will be the output?	sea occurs 2 times	sea occurs 1 times	It will not give error because rex variable should be define as System.RegularExpression.Regex	None of the above	A	4	1
12	You have a large flat file having product name and price. which is updated once in a day. you need to display the proudct name and price on your webpage catalogue. you have two point of consideration Quick Access of product list and second is consume least memory to implememnt it. what method you will follow to achive this goal	you will open the file and store the product list and price in static array	you will open the file and convert into array and assign to catelogue view	you will save the file as object in NoSql database and access from there	None of the above	D	2	0.5
13	What is the output of the short program below? ` ` `<pre>` class Program { static String Time; static DateTime time; static void Main() { Console.WriteLine(Time == null ? "Time is null" : Time); Console.WriteLine(time == null ? "time is null" : time.ToString()); } } `</pre>`	`<pre>` Time is null 1/1/0001 12:00:00 AM `</pre>`	`<pre>` Time is null null 1/1/0001 12:00:00 AM `</pre>`	`<pre>` 0 Error `</pre>`	`<pre>` Error 0 `</pre>`	A	2	0.5
14	What will be the output of the code given below? ` ` `<pre>` int num = 1, z = 5; if (!(num <= 0)) Console.WriteLine(++num + z++ + " " + ++z); else Console.WriteLine(--num + z-- + " " + --z); `</pre>`	5 6	6 5	6 6	7 7	D	2	0.5
15	What will be the output of the code given below? ` ` `<pre>`int i, j = 1, k; for (i = 0; i < 5; i++) { k = j++ + ++j; Console.Write(k + " "); } `</pre>`	8 4 16 12 20	4 8 12 16 20	4 8 16 32 64	2 4 6 8 10	B	2	0.5

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16	What is the output of the following code ? <pre> static void Main(string[] args) { m(); Console.ReadLine(); } static void m() { Console.WriteLine("HI"); m(); } </pre>	HI HI HI	HI	Stack overflow exception	Compile time error	C	2	0.5
17	What is the recommended method for securing sensitive connection string information?	Encrypting the data in the application configuration file	Using a code obfuscator	Using Integrated Security (Windows Authentication)	Querying the user for his or her credentials at run time	C	2	0.5
18	How many types of authentication ASP.NET supports?	Windows Authentication	.NET Passport Authentication	Forms Authentication	All of the above	D	2	0.5
19	What is the Correct ASP.NET page life cycle event?	PreInit, Init, InitComplete, PreLoad, Load, LoadComplete, PreRender, PreRenderComplete, SaveStateComplete, Render, Unload	PreInit, Init, InitComplete, PreLoad, Load, LoadComplete, PreRender, PreRenderComplete, SaveStateComplete, RenderComplete, Unload	PreInit, Init, InitComplete, PreLoad, Load, LoadComplete, PreRender, PreRenderComplete, SaveState, RenderComplete, Unload	PreInit, Init, InitComplete, PreLoad, Load, LoadComplete, PreRender, PreRenderComplete, SaveState, Render, UnloadComplete	A	2	0.5
20	You are developing a Web page that contains many validated controls. You want to provide a detailed message for each validation error, but the page doesn't have sufficient space to provide the detailed message next to each control. What can you do to indicate an error at the control and list the detailed error messages at the top of the Web page?	 1. Set the Text property of the validator control to the detailed message. 2. Set the ErrorMessage property to an asterisk (*). 3. Place a ValidationSummary control at the top of the Web page.	 1. Set the ErrorMessage property of the validator control to the detailed message. 2. Set the Text property to an asterisk (*). 3. Place a ValidationSummary control at the top of the Web page.	 1. Set the ToolTip property of the validator control to the detailed message. 2. Set the ErrorMessage property to an asterisk (*). 3. Place a ValidationSummary control at the top of the Web page. 	None of the above	B	4	1
21	How many types of caching ASP.NET supports?	Page Output Caching	Partial Page Caching	DataSource Caching	All of the above	D	2	0.5
22	Application_Start event is available in which file?	App_Code	Global.asax	Web.config	ASP Configuration file	B	2	0.5
23	Identify the type of sorting code below? <pre>func sort(var a as array) for i from 1 to N for j from 0 to N - 1 if a[j] > a[j + 1] swap(a[j], a[j + 1]) end func</pre>	Insertion Sort	Merge Sort	Radix Sort	Bubble Sort	D	2	0.5
24	Which property causes a control to fire an event server side?	EnableViewState	AutoPostBack	RunAtServer	All of the above	B	2	0.5
25	Which of the following is the DML operation	ExecuteReader()	ExecuteScalar()	ExecuteNonQuery()	ExecuteQuery()	C	2	0.5
26	Which of the following statements are correct about JIT? 1. JIT compiler compiles instructions into machine code at run time. 2. The code compiler by the JIT compiler runs under CLR. 3. The instructions compiled by JIT compilers are written in native code. 4. The instructions compiled by JIT compilers are written in Intermediate Language (IL) code. 5. The method is JIT compiled even if it is not called	1, 2, 3	1, 3, 4	1,2	5	A	2	0.5
27	What events are fired after a page has been posted back.?	Page_Init, Page_Load	Page_PreInit, Page_PreLoad, Page_Init, Page_Load	Page_PreInit, Page_PreLoad	All of the above	A	2	0.5
28	Correct way of display string below Hello From NCRB on 12/21/2016 (assume it as current date 	Response.Output.Write("Hello From {0} on {1:d}", "NCRB", DateTime.Now)	Response.Write("Hello From {0} on {1:d}", "NCRB", DateTime.Now)	Response.String.Write("Hello From {0} on {1:d}", "NCRB", DateTime.Now)	Response.Stream.Write("Hello From {0} on {1:d}", "NCRB", DateTime.Now)	A	2	0.5

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SlNo	Question	Option A	Option B	Option C	Option D	Answer	Max Marks	Negative Marks
29	Consider the following database for IO's to maintain a checklist against a particular FIR. The database maintains tasks which have been completed(checked) and which are incomplete(unchecked). It is having two masters and two transactional tables. Find <q>checkName</q>, <q>offenc_id</q> and <q>firno_id</q> of checked and unchecked <q>checkNames</q> of body offence(<q>offenceType_id</q>=601) regarding fir#123/16 as shown in output table <img src="../images/database.jpg" alt="database" height="500" width="700"> Which of following SQL Statement produces output as shown in Desired output.	<pre> select a.checkName, b.offence_id, b.firNo_id from m_offence a right outer join (select * from t_checkedOffence where firNo_id= (select id from t_fir where firNo='123/16') OR firNo_id IS NULL) b on a.id=b.offence_id where offenceType_id=601 </pre>	<pre> select a.checkName, b.offence_id, b.firNo_id from m_offence a right outer join (select * from t_checkedOffence where firNo_id= (select id from t_fir where firNo='123/16')) b on a.id=b.offence_id where offenceType_id=601 </pre>	<pre> select a.checkName, b.offence_id, b.firNo_id from m_offence a left outer join (select * from t_checkedOffence where firNo_id= (select id from t_fir where firNo='123/16') OR firNo_id IS NULL) b on a.id=b.offence_id where offenceType_id=601 </pre>	<pre> select a.checkName, b.offence_id, b.firNo_id from m_offence a (select * from t_checkedOffence where id= (select id from t_fir where firNo='123/16')) b on a.id=b.offence_id where offenceType_id=601 </pre>	C	4	1
30	Consider the following database for IO's to maintain a checklist against a particular FIR. The database maintains tasks which have been completed(checked) and which are incomplete(unchecked). It is having two masters and two transactional tables. <img src="../images/database1.png" alt="database1" height="317" width="742"> A officer wants to check whether <q>Spot verification</q> of Fir #123/16 has been done or not. Find out which of the following SQL query correctly evaluates this.	<pre> select a.checkName, b.firNo from m_offence a left outer join t_checkedOffence c on a.id=c.offence_id inner join t_fir b on c.firNo_id=b.id inner join m_offencetype d on d.id=c.offence_id where a.checkName='Spot verification' and b.firNo='123/16'; </pre>	<pre> select a.checkName, b.firNo from m_offence a left outer join t_fir b on a.id=b.offenceType_id join t_checkedOffence c on c.firNo_id=b.id where a.checkName='Spot verification' and b.firNo='123/16'; </pre>	<pre>select a.checkName, b.firNo from m_offence a,t_fir b,t_checkedOffence c where a.checkName='Spot verification' and a.id=c.offence_id and c.firNo_id=b.id and b.firNo='123/16'; </pre>	None of the above	C	4	1
31	Consider the following database for IO's to maintain a checklist against a particular FIR. The database maintains tasks which have been completed(checked) and which are incomplete(unchecked). It is having two masters and two transactional tables. <img src="../images/database1.png" alt="database1" height="317" width="742"> Find no. of checks that have been done in each fir with offence type is <q>Body Offence</q> in ascending order by <q>firNo</q>. Which of the following query will produce the desired result.	<pre>select count(a.offence_id), b.firNo from t_checkedOffence a,t_fir b,m_offenceType c where a.firNo_id=b.id and c.id=b.offenceType_id group by b.firNo having c.id='Body Offence' order by b.firNo asc</pre>	<pre>select count(a.offence_id), b.firNo from t_checkedOffence a right outer join t_fir b on a.firNo_id=b.id right outer join m_offenceType c on c.id=b.offenceType_id group by b.firNo having c.id='Body Offence' order by b.firNo asc </pre>	<pre>select count(a.offence_id), b.firNo from t_checkedOffence a,t_fir b,m_offenceType c where a.firNo_id=b.id and c.id=b.offenceType_id and c.name='Body Offence' group by b.firNo,a.offence_id order by b.firNo asc</pre>	<pre> select count(a.offence_id), b.firNo from t_checkedOffence a,t_fir b,m_offenceType c where a.firNo_id=b.id and c.id=b.offenceType_id and c.name='Body Offence'group by b.firNo order by b.firNo</pre>	D	4	1
32	Types of Garbage Collector in VB.NET are Generation 0 ,Generation 1 ,Generation 2 Which option is correct	<pre>1. Generation 0 – This identifies a newly created object that has been never marked for collection. 2. Generation 1 – This identifies an object which has been marked as collection but not removed. 3. Generation 2 – This identifies an object that has survived more than one sweep of the Garbage collector.</pre>	<pre>1. Generation 0 – This identifies an object which has been marked as collection but not removed. 2. Generation 1 – This identifies a newly created object that has been never marked for collection. 3. Generation 2 – This identifies an object that has survived more than one sweep of the Garbage collector.</pre>	1. Generation 0 – This identifies an object that has survived more than one sweep of the Garbage collector. 2. Generation 1 – This identifies an object which has been marked as collection but not removed. 3. Generation 2 – This identifies a newly created object that has been never marked for collection.</pre>	<pre>1. Generation 0 – This identifies a newly created object that has been never marked for collection. 2. Generation 1 – This identifies an object that has survived more than one sweep of the Garbage collector. 3. Generation 2 – This identifies an object which has been marked as collection but not removed.</pre>	A	4	1
33	Choose correct option 1) In VB.NET Optional Parameters are accepted but In C# Optional Parameters are not accepted 2) VB.NET is Case Insensitive but C# is Case Sensitive 3) VB.NET and C# both Case Sensitive 4) In C# Optional Parameters are accepted but In VB.NET Optional Parameters are not accepted	1 & 2	1 & 3	3 & 4	3 & 2	A	2	0.5
34	Memory-mapped files (MMFs) in Microsoft .NET allows	map the content of a file to the physical address of an application	map the content of a file to both physical & logical address of an application	map the content of a file to the logical address of an application	None of the above	C	2	0.5

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35	Identify the flow chart <img src="../images/flowchar1.png" alt="Flow Chart" height="550" width="500">	Binomial	Armstrong	Palindrome Number	Factorial	D	2	0.5
36	Choose Correct option <img src="../images/FourFlowChart.png" alt="Flow Chart" height="600" width="800"> NOTE: 1. An Armstrong number of three digits is an integer such that the sum of the cubes of its digits is equal to the number itself. For example, 371 is an Armstrong number since $3^3 + 7^3 + 1^3 = 371$. 2. Fibonacci is a series of numbers in which each number (Fibonacci number) is the sum of the two preceding numbers. The simplest is the series 1, 1, 2, 3, 5, 8, etc 3. A palindromic number or numeral palindrome is a number that remains the same when its digits are reversed. Like 16461	FC1=Armstrong, FC2=Binary Search, FC3=Fibonacci, FC4=Palindrome	FC1=Palindrome, FC2=Binary Search, FC3=Fibonacci, FC4=Armstrong	FC1=Armstrong, FC2=Binary Search, FC3=Palindrome, FC4=Fibonacci	FC1=Fibonacci, FC2=Binary Search, FC3=Armstrong,FC4=Palindrome	A	4	1
37	Find the output of the following code if x=10. <pre> int sum(int x) { if (x >= 1) return x+sum(x-1); else return 0; } </pre>	55	56	Compiler Error	Stack over flow	A	2	0.5
38	Which control works as a navigator to display a large amount of information or for visual adjustment of numeric setting	wheelman control	Navigator control	sliding control	TrackBar control	D	2	0.5
39	What is the name of ASP.NET control in given picture <img src="../images/breadcrumb.png" alt="Flow Chart" height="130" width="600">	Breadcrumb Control	Navigator Control	SiteMapPath Control	HorizontalTree Control	C	2	0.5
40	What is the difference between the Clone() and Copy() methods of the DataSet class?	The copy() method copies only the structure of a DataSet. The Clone() method copies structure includes all the relation, constraint, and DataTable schemas used by the DataSet	The Clone() method copies only the structure of a DataSet. The copied structure includes all the relation, constraint, and DataTable schemas used by the DataSet	Both Copy() and Clone() methods copies structure includes all the relation, constraint, and DataTable schemas used by the DataSet	Both Copy() and Clone() methods copies only structure of the DataSet	B	2	0.5
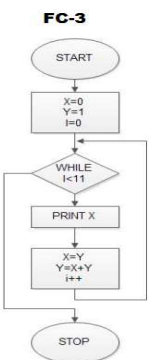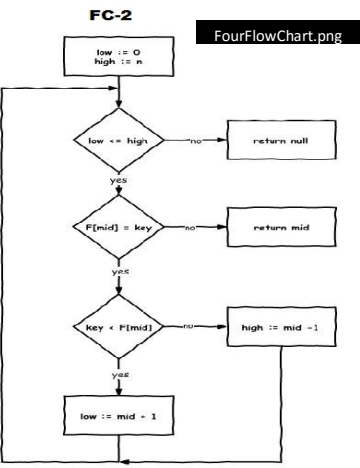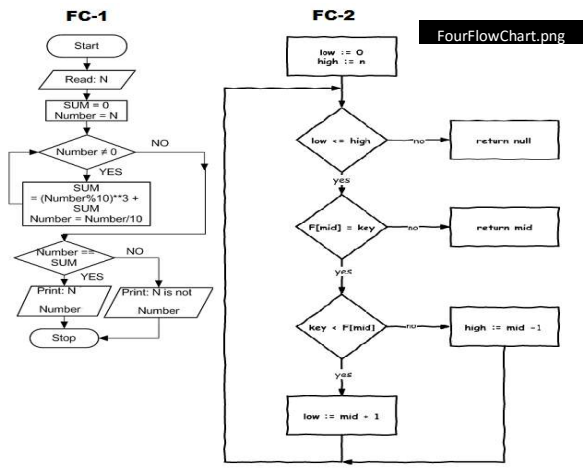
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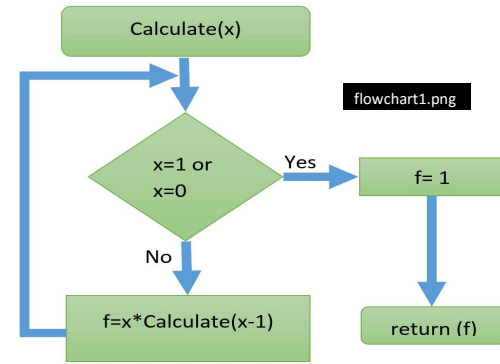| SlNo	Question	Option A	Option B	Option C	Option D	Answer	Max Marks	Negative Marks

m_offence

id (PK)	checkName	offenceType_id
501	FIR	601
502	Spot verification	601
503	Medical examination of the injured and MLC	601
504	Statement of neighbours	602
505	Production of accused before court	601

m_offenceType

id(PK)	Name
601	Body Offence
602	Property Offence

database1.png

t_fir

id(PK)	firNo	offenceType_id	firSummary
101	123/16	601	summary1
102	120/16	601	summary2

t_checkedOffence

id(PK)	firNo_id	offence_id
201	101	502
202	101	505

flowchart1.png

60th All India Police Durty Meet 2016, Mysuru, Karnataka