

Enrollment No.....



Faculty of Science
End Sem Examination Dec-2023
BC3EC04 C# Programing

Programme: B.Sc.

Branch/Specialisation: Computer
Science**Duration: 3 Hrs.****Maximum Marks: 60**

Note: All questions are compulsory. Internal choices, if any, are indicated. Answers of Q.1 (MCQs) should be written in full instead of only a, b, c or d. Assume suitable data if necessary. Notations and symbols have their usual meaning.

- Q.1 i. Which statement is correct about following C# code? 1
`int[,]a={ {5, 4, 3},{9, 2, 6} };`
 (a) 'a' represents 1-D array of 5 integers
 (b) `a.GetUpperBound(0)` gives 9
 (c) 'a' represents rectangular array of 2 columns and 3 arrays
 (d) `a.GetUpperBound(0)` gives 2
- ii. Choose selective differences between an array in c# and array in other programming languages. 1
 (a) Declaring array in C# the square bracket([]) comes after the type but not after identifier
 (b) It is necessary to declare size of an array with its type
 (c) No difference between declaration of array in c# as well as in other programming languages
 (d) All of these
- iii. How many Bytes are stored by 'Long' Data type in C# .net? 1
 (a) 8 (b) 4 (c) 2 (d) 1
- iv. Correct Declaration of Values to variables 'a' and 'b'? 1
 (a) `int a = 32, b = 40.6;` (b) `int a = 42; b = 40;`
 (c) `int a = 32; int b = 40;` (d) `int a = b = 42;`
- v. Which data type should be more preferred for storing a simple number like 35 to improve execution speed of a program? 1
 (a) sbyte (b) short (c) int (d) long

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- vi. Default Type of number without decimal is- **1**
 (a) Long Int (b) Unsigned Long
 (c) Int (d) Unsigned Int
- vii. Number of constructors a class can define is- **1**
 (a) 1 (b) 2
 (c) Any number (d) None of these
- viii. What is the return type of constructors? **1**
 (a) int (b) float (c) void (d) None of these
- ix. Which of the classes provide the operation of reading from and writing to the console in C#.NET? **1**
 (a) System.Array (b) System.Output
 (c) System.ReadLine (d) System.Console
- x. Choose the output returned when an error condition is generated while read() reads from the console. **1**
 (a) False (b) 0 (c) -1 (d) All of these
- Q.2 i. "C# Constructor can return the value". Justify. **2**
 ii. Explain managed code and unmanaged code. **3**
 iii. Describe the structure of a C# Program with proper code-structure. Explain the jump statements available in C#. **5**
- OR iv. What is .Net framework? Explain architecture of .Net framework. **5**
- Q.3 i. What is inheritance? Explain it in brief with suitable example. **3**
 ii. What is argument passing mechanism in C#? Explain out and ref parameters with example. **7**
- OR iii. Write a console application to perform Celsius to Fahrenheit conversion and Fahrenheit to Celsius conversion. **7**
- Q.4 i. What support is provided by c# for events? **3**
 ii. What are the two types of delegates? Explain each with an example. **7**
- OR iii. Explain the process of handing events through delegates. **7**
- Q.5 i. What is the difference between overloading and overriding methods? **2**
 ii. Discuss the Assemblies. Discuss how .Net platform answers to DLL hell problem. **8**

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- OR iii. Explain the Following: **8**
 (a) CLS (b) Namespaces
 (c) Boxing and Unboxing (d) CTS
- Q.6 Attempt any two: **5**
 i. What is Cookieless Session ID? Explain in brief. **5**
 ii. What is the purpose of vision-tolerant serialization in C#. **5**
 iii. Differentiate between Master Page and Theme Page in ASP.NET. **5**

Scheme of Marking

C# Programming-BC3EC04(T)

Q.1	i)	Which statement is correct about following C# code?	1
		<code>int[,]a={{5, 4, 3},{9, 2, 6}};</code>	
		Ans c) 'a' represents rectangular array of 2 columns and 3 arrays	
	ii)	Choose selective differences between an array in c# and array in other programming languages.	1
		Ans a) Declaring array in C# the square bracket([]) comes after the type but not after identifier	
	iii)	How many Bytes are stored by 'Long' Data type in C# .net?	1
		Ans a) 8	
	iv)	Correct Declaration of Values to variables 'a' and 'b'?	1
		Ans c) int a = 32; int b = 40;	
	v)	Which data type should be more preferred for storing a simple number like 35 to improve execution speed of a program?	1
		Ans a) sbyte	
	vi)	Default Type of number without decimal is?	1
		Ans c) Int	
	vii)	Number of constructors a class can define is?	1
		Ans c) Any number	
	viii)	What is the return type of constructors?	1
		Ans d) none of the mentioned	
	ix)	Which of the classes provide the operation of reading from and writing to the console in C#.NET?	1
		Ans d) System.Console	
	x)	Choose the output returned when an error condition is generated while read() reads from the console.	1
		Ans c) -1	
Q.2	i.	"C# Constructor can return the value " - Justify	2
	ii.	Explain Managed Code	1.5 marks
		Unmanaged Code.	1.5 marks
	iii.	Structure of a C# Program with proper code-structure	5
		Jump statements available in C#	3 marks
			2 marks

OR	iv.	What is .Net framework	2 marks	5
		Architecture of .Net framework.	3 marks	
Q.3	i.	Inheritance	1.5 marks	3
		Example.	1.5 marks	
	ii.	Argument passing mechanism in C#	3 marks	7
		Out parameters with example	2 marks	
		Ref parameters with example.	2 marks	
OR	iii.	Console application to Perform		7
		Celsius to Fahrenheit Conversion	3.5 marks	
		Fahrenheit to Celsius conversion	3.5 marks	
Q.4	i.	What support is provided by c# for events?		3
	ii.	What are the two types of delegates? Explain each with an example.		7
		3.5 marks for each type	(3.5 marks * 2)	
OR	iii.	Explain the process of handing events through delegates.		7
		As per the explanation		
Q.5	i.	What is the difference between overloading and overriding methods?		2
	ii.	Discuss the Assemblies	4 marks	8
		How .Net platform answers to DLL hell problem.	4 marks	
OR	iii.	Explain the Following: 2 marks for each	(2 marks * 4)	8
		a) CLS b) Namespaces c) Boxing and Unboxing d) CTS		
Q.6		Attempt any two:		
	i.	What is Cookieless Session ID? Explain in brief.		5
		As per explanation		
	ii.	What is the purpose of vision-tolerant serialization in C#.		5
		As per explanation		
	iii.	Differentiate between Master Page and Theme Page in ASP.NET.		5
		1 mark for each difference	(1 mark * 5)	
