G. VENKATASWAMY NAIDU COLLEGE (AUTONOMOUS), KOVILPATTI – 628 502.

UG DEGREE END SEMESTER EXAMINATIONS - NOVEMBER 2024.

(For those admitted in June 2021 and later)

PROGRAMME AND BRANCH: B.Sc., INFORMATION TECHNOLOGY

SEM	CATEGORY	COMPONENT	COURSE CODE	COURSE TITLE
V	PART - III	CORE	U21IT506	C# .NET PROGRAMMING

Date & Session: 05.11.2024 / FN   **Time : 3 hours**   **Maximum: 75 Marks**

Course Outcome	Bloom's K-level	Q. No.	
			SECTION – A (10 X 1 = 10 Marks) **Answer ALL Questions.**
CO1	K1	1.	Which of the following is a correct data type in C#? a) integer b) int c) num d) whole
CO1	K2	2.	Which of the following correctly describes the 'using' statement in C#? a) It is used to include namespaces in the program b) It is used to declare a variable c) It is used to close a file d) It is used to create an infinite loop
CO2	K1	3.	What does ASP.NET stand for? a) Active Server Pages Network b) Application Service Pages Network c) Active Server Pages .NET d) Application Server Pages .NET
CO2	K2	4.	Which of the following is the file extension for an ASP.NET web page? a) .asp b) .aspx c) .html d) .net
CO3	K1	5.	Which of the following is the default error page in ASP.NET? a) CustomError.aspx b) Global.asax c) DefaultError.aspx d) GenericErrorPage.aspx

CO3	K2	6.	Which of the following correctly describes how to create a cookie in ASP.NET?
			a) Response.SetCookie(new HttpCookie("username", "JohnDoe"));
			b) Response.AddCookie(new HttpCookie("username", "JohnDoe"));
			c) Response.CreateCookie(new HttpCookie("username", "JohnDoe"));
			d) Response.Cookies.Add(new HttpCookie("username", "JohnDoe"));

CO4	K1	7.	Which of the following is a built-in validation control in ASP.NET? a) CompareValidator b) RegexValidator c) TextValidator d) FormValidator
CO4	K2	8.	Which property of the validation controls in ASP.NET specifies the input control to validate? a) ControlID b) ValidatorControl c) TargetControl d) ControlToValidate
CO5	K1	9.	Which of the following is a command used to retrieve data from a SQL database? a) SELECT b) INSERT c) UPDATE d) DELETE
CO5	K2	10.	What is the purpose of the PRIMARY KEY in a SQL table? a) To allow duplicate entries in a column b) To uniquely identify each row in a table c) To store large amounts of data d) To define the default sorting order
Course Outcome	Bloom's K-level	Q. No.	**SECTION – B (5 X 5 = 25 Marks)** **Answer ALL Questions choosing either (a) or (b)**
CO1	K3	11a.	Explain the role of the Common Language Runtime (CLR) in the .NET Framework. How does it manage memory, and what impact does this have on the performance and security of .NET applications? **(OR)**
CO1	K3	11b.	Discuss the importance of Just-In-Time (JIT) compilation in the .NET Framework.

Course Outcome	Bloom's K-level	Q. No.	
CO2	K3	12a.	Discuss the differences between HTML controls and ASP.NET server controls. How do server controls enhance the development of dynamic web applications in ASP.NET? Provide examples to illustrate your points.
			(OR)
CO2	K3	12b.	Analyze the life cycle of an ASP.NET server control. How does understanding the life cycle help in developing more efficient and bug-free web applications?
CO3	K4	13a.	Discuss the various methods of error handling in ASP.NET and explain when each method should be used?
			(OR)
CO3	K4	13b.	Analyze how logging and tracing can complement error handling in ASP.NET applications?
CO4	K4	14a.	Design a validation strategy for an ASP.NET web application that includes both server-side and client-side validation.
			(OR)
CO4	K4	14b.	Explain how you would implement complex validation logic that involves multiple fields in an ASP.NET application? What techniques and tools would you use to ensure the validation rules are met, and how would you handle validation errors? Provide a detailed example.
CO5	K5	15a.	Design a normalized database schema for a small online bookstore. The schema should include tables for books, authors, categories, and orders.
			(OR)
CO5	K5	15b.	Given a table 'Employees' with columns 'EmployeeID', 'Name', 'Department', 'Salary', and 'HireDate', write an SQL query to identify the top 3 highest-paid employees in each department. Explain how your query works.

Course Outcome	Bloom's K-level	Q. No.	**SECTION – C (5 X 8 = 40 Marks)** **Answer ALL Questions choosing either (a) or (b)**
CO1	K3	16a.	Discuss the differences between value types and reference types in C#.
			(OR)
CO1	K3	16b.	Explain the concept of variable scope in C# with examples.
CO2	K4	17a.	Analyze how the 'Application_Start' and 'Application_End' events work in ASP.NET.
CO2	K4	17b.	**(OR)** Evaluate how custom application events can be implemented and managed in ASP.NET?
CO3	K4	18a.	Compare and contrast the different state management techniques available in ASP.NET, such as ViewState, SessionState, and Cookies.
			(OR)
CO3	K4	18b.	Evaluate the implications of using server-side versus client-side state management in ASP.NET.
CO4	K5	19a.	Critically analyze the use of the AdRotator control in ASP.NET for dynamic advertisement management.
			(OR)
CO4	K5	19b.	Evaluate the implementation of AdRotator control with a custom data source such as an XML file or a database.
CO5	K5	20a.	Evaluate the role of data controls in ADO.NET for managing data-bound user interfaces. Compare and contrast different data controls such as DataGridView, Repeater, GridView, and ListView.
			(OR)
CO5	K5	20b.	Design a data-driven ASP.NET application that uses ADO.NET to implement a comprehensive data management system.