

PSG COLLEGE OF ARTS & SCIENCE (AUTONOMOUS)

BVoc DEGREE EXAMINATION DECEMBER 2025
(Fifth Semester)

Branch - NETWORKING AND MOBILE APPLICATION

.NET TECHNOLOGIES

Time: Three Hours

Maximum: 75 Marks

SECTION-A (10 Marks)

Answer ALL questions

ALL questions carry **EQUAL** marks

$$(10 \times 1 = 10)$$

Cont.,

	10	Which of the following is used to fetch data from a database in ADO.NET without loading it into memory? a) DataReader b) DataSet c) DataTable d) DataAdapter	K2	CO5
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SECTION - B (35 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks (5 x 7 = 35)

Module No.	Question No.	Question	K Level	CO
1	11.a.	How has the .NET Framework changed over time? (OR)	K2	CO1
	11.b.	What are C# preprocessor commands? Can you give some examples?		
2	12.a.	Differentiate between delegates and events in C# with suitable examples. (OR)	K2	CO2
	12.b.	Compare ArrayList and List<T> in C#.		
3	13.a.	Explain the concept of triggers in WPF and how they are used to change the properties or appearance of controls based on specific events. Provide examples. (OR)	K3	CO3
	13.b.	Describe how asynchronous programming is implemented in an ASP.NET 4.5 Web Application. Illustrate your explanation with an example (use the async and await).		
4	14.a.	Design a website using standard ASP.NET Web Forms controls. (OR)	K3	CO4
	14.b.	Explain how to implement custom navigation logic in an ASP.NET Web Forms application using the Menu and TreeView controls.		
5	15.a.	Create a page where users can reset their password by confirming it in a second text box. Implement the CompareValidator control to ensure both password fields match. (OR)	K4	CO5
	15.b.	Imagine you are tasked with fetching a large set of data from a SQL Server database into a DataSet and then populating a grid in the UI. Explain how you would implement this in ADO.NET		

SECTION - C (30 Marks)

Answer ANY THREE questions

ALL questions carry EQUAL Marks (3 x 10 = 30)

Module No.	Question No.	Question	K Level	CO
1	16	Demonstrates the use of #define, #if, and #else directives.	K2	CO1
2	17	Explain the concepts of Encapsulation, Inheritance, Polymorphism, Abstraction, and Interfaces in C#. Illustrate with examples.	K2	CO2
3	18	Describe the ASP.NET 4.5 page lifecycle in detail. Outline the actions that occur at each stage, from the page request to rendering.	K3	CO3
4	19	Design and implement a SiteMap file for an ASP.NET Web Forms application that supports the creation of a TreeView control, a static and dynamic Menu control, and a SiteMapPath control.	K4	CO4
5	20	Develop a web form using ASP.NET Web Forms that implements client-side and server-side validation using various validation controls.	K5	CO5