

Tribhuvan University
Institute of Science and Technology
2076

Bachelor Level / sixth-semester / Science

Computer Science and Information Technology(CSC367)

NET Centric Computing

Full Marks: 60 + 20 + 20

Pass Marks: 24 + 8 + 8

Time: 3 Hours

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Attempt all questions.

Answer the following questions in short.

- 1
- a. ASP requirements
 - b. Client vs server-side script
 - c. ADO
 - d. VB Script
 - e. Error Handling

- 2
- a. Differentiate between ASP and IIS.
 - b. Explain the virtual directory properties.

- 3
- a. Explain about request object and session object.
 - b. Differentiate between application object and server object.



- a. Explain about file access with ASP with example.

4 b. What do you mean by debugging ASP? Explain.

a. Explain the sending and receiving e-mail with ASP with example.

5 b. Explain the components of ASP.

a. Explain the client-side scripting with practical example.

6 b. What do you mean by Microsoft Net framework? Explain with example.

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Group A

Attempt any two questions.

- 1 Differentiate between struct and enum. Why do we need to handle the exception?
Illustrate with an example with your own customized exception.

- 2 Explain the procedure for building, running, and deploying .NET core applications. Write a program to show the possibility of SQL injection attack.

- 3 What are the advantages of stateless HTTP in ASP.NET core application? Create a method to insert a record (3, "John", 12000) onto the table Employee having fields EmployeeId(int), Name varchar(200), Salary(int) using Entity Framework.

Group B

Attempt any eight questions.

- 4 Define open redirect attacks. Discuss about docker and containerization.



5 What is named and positional attribute parameters? Describe the .Net architecture design and principles.

6 Explain about request and response message format with example.

7 Why do we need to validate the form? How can you use react for this?

8 Define data model and data context. What does URL routing mean?

9 Give an example to manage the session state.

10 How can you prevent SQL injection attack? Explain with an example.

11 Explain the process to deploy the core application.

Write short notes on (any two)

a. LINQ

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b. Open Redirected Attack

c. Query String



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Group A

Attempt any two questions.

1 What is the purpose of web form? Write a program to demonstrate the concept of collection and generics.

2 Explain the uses of cookies. What types of vulnerabilities can occur in web application? Show the case of Cross-site Scripting attack.

3 Describe any two hosting models for core application. Design a client side validation application using jquery for taking input data from student in Library Management System, assume your own assumptions.

Group B

Attempt any eight questions.

4 How to you assign roles, claims and policies? Explain with an example.



5 What types of problems lead to SQL injection attack? Discuss any two types of ASP.Net host models.

6 What does single page application means? Discuss about server side strategies.

7 Write an ADO. Net application to read the data from the existing table MOVIE(id, name, genre), where genre is "comedy".

8 Differentiate between .NET and ASP.NET frameworks. How do you test the .NET core applications?

9 Define HTTP. Explain the MVC pattern.

10 What does dependency injection and IOC container means? Explain.

11 What is tag helper? Discuss about razor syntax with an example.

Write short notes on (any two):

- 12
1. Lambda Expression
 2. Containerization using Docker
 3. Delegates and Events

