Tribhuwan University
Institute of Science and Technology
2078

Bachelor Level / sixth-semester / Science Full marks: 60 **Computer Science and Information Technology(CSC367)** Pass marks: 24
(NET Centric Computing) 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.

Group A

Attempt any two questions [2*10=20]

1. Differentiate between struct and enum. Why do we need to handle the exception? Illustrate with an example with your own customized exception.[2+8]

2. Explain the procedure for building, running and deploying .NET core applications. Write a program to show the possibility of SQL injection attack.[5+5]

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.[4+6]

Group B

Attempt any EIGHT questions[8*5=40]

4. Define open redirect attacks. Discuss about docker and containerization.[2+3]

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

principles.[2+3] 6. Explain about request and response message format with example.[5]

7. Why do we need to validate the form? How can you use react for this?[2+3]

8. Define data model and data context.What does URL routing mean?[2+3]

9. Give an example to manage the session state.[5]

10. How can you prevent SQL injection attacks? Explain with an example.[5]

11. Explain the process to deploy the core application.[5]

12. Write short notes on (any two)[2*2.5=5]

a. LINQ

b. Open Redirect Attacks

c. Query string