



Register Number:  
Date: 24-11-2020

**ST. JOSEPH'S COLLEGE (AUTONOMOUS), BANGALORE-27**  
**BCA - III SEMESTER**  
**SEMESTER EXAMINATION: NOVEMBER 2020**  
**CA3218- .NET TECHNOLOGIES**

**Time- 2 1/2 hrs**

**Max Marks-70**

**PART A**

**ANSWER ALL THE QUESTIONS EACH CARRIES TWO MARKS**

**2x 10 = 20**

1. Write the various applications of C#.
2. How to find the sum of digits of a positive integer?
3. How to find all possible substring of a given string?
4. Compare between boxing and unboxing.
5. Write the purpose of key word "finally".
6. How is Dynamic binding help in programming. Give one example.
7. What is method overloading?
8. How are sealed classes used?
9. List the components of ASP. NET.
10. What is record set?

**PART B**

**ANSWER ANY FIVE QUESTIONS EACH CARRIES SIX MARKS**

**6 x 5 = 30**

11. Write a note on: a) Rules on static class b) abstract keyword. 3 + 3 marks
12. Write a program that creates a multiple try catch blocks. Try to generate an exceptions for Invalid index access of an array and attempt to divided the elements of an array with zero.
13. Write the syntax and example for a) foreach b) pass by reference 3 + 3

14. Write a program to show the implementation of default and parameterized constructor to initialize the principal, rate and time and show how it can help to calculate simple interest.
15. Write a program to demonstrate declaration, instantiation and use of a delegate that can be used to reference methods that takes float parameter and returns float value.
16. Write a program to implement an interface in C# with program to perform purchase items and total amount.
- Method to initialize the purchase. (itemcode, date and amount)
  - Method to accept the purchase details
  - Method to return amount
  - Method to show the two purchase details.
17. Differentiate between Connection Model & Disconnected Model in data access.

### PART C

ANSWER ANY TWO QUESTION EACH CARRIES TEN MARKS

2 x 10 = 20

18. Create a login page to show web application in ASP.NET
19. Write program for the following: 2 x 5 = 10
- a) Method overriding to display the information of class commencement.
  - b) Jagged array to store 3 array elements and access the elements of the Jagged array by specifying the row and column with the array name.
20. a) Write C# code to find the product of two square matrices. 5 + 5 = 10
- Use methods to accept the matrices and to compute the product of matrices.
- b) Explain about Data Provider and show how it can be connected to front end and back end.

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