

C#

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Science Information Technology

TYBSc-IT

Semester 6

University Exam

University of Mumbai

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- B. (1) Question No. 1 is compulsory.
 (2) From Question Nos. 2 to 7 attempt any four questions.
 (3) Make suitable assumptions wherever necessary.
 (4) Answer to the same question must be written together.

Write short notes on the following

- | | |
|--|---|
| i. Variable Argument Lists | 5 |
| ii. Method Modifiers | 5 |
| iii. Exception handling in C# | 5 |
| iv. Namespaces in C# | 5 |
| c) Generate the following triangle by making use of goto, continue and break statements. | 8 |
| <pre> 1 22 333 4444 55555 </pre> | |
| b) Explain concept of boxing. How it is used in ArrayList class? Explain. | 6 |
| c) What is shorthand assignment operator? What are the advantages of using a shorthand operator? | 6 |
| 3. a) Write a method that computes the sum of digits of a given integer. Write a program to test the above method. | 8 |
| b) Explain 'smart fields' with example. | 6 |
| c) Explain the concept of indexer with suitable example. | 6 |
| 4. a) Write a program to count number of words from a given string by making use of regular expressions. | 8 |
| b) Explain constant members and readonly members of a class. | 6 |
| c) Destructors in C# behave differently than in C++. Comment. | 6 |
| 5. a) Write a complete program to explain nesting of structures. | 8 |
| b) What is the difference between defining the method of a class as override and as a new? Explain with example. | 6 |
| c) Explain the different steps to create and use delegates. | 6 |
| 5. a) Define a class MyString with the following features. | 8 |
| i) An overloaded binary + operator that concatenates two MyString objects and create a third object. | |
| ii) An overloaded comparison operator '==' to compare two strings. | |
| iii) An overloaded unary - (minus) operator that returns true if the string object is empty; otherwise false. | |
| b) What character escape sequences are available in C#. Give their meanings. | 6 |
| c) Describe various forms of implementing interfaces. Give examples of C# code for each case. | 6 |
| a) Write a program to implement use of checked and unchecked operators in try...catch block. | 8 |
| b) Explain polymorphism? Explain inclusion polymorphism with suitable example. | 6 |
| c) Explain overloading with example. | 6 |