

**B.Sc. (Part—III) Semester—V Examination**

**5S : COMPUTER APPLICATION/INFORMATION TECHNOLOGY**

**(Programming in C#)**

Time : Three Hours]

[Maximum Marks : 80

- Note** :— (1) All questions are compulsory.  
(2) Question 1 carries 8 marks and all other questions carry 12 marks.  
(3) Assume suitable data wherever necessary.

1. (A) Fill in the blanks :

- (i) \_\_\_\_\_ are the non executable statements of a C# program. ½
- (ii) \_\_\_\_\_ is called automatically whenever an object is destroyed. ½
- (iii) In operator overloading it is not possible to change \_\_\_\_\_ and \_\_\_\_\_ of an existing operator. ½
- (iv) \_\_\_\_\_ is used for multiple decision making. ½

(B) Choose the correct alternative :

- (i) \_\_\_\_\_ is used to convert the result of an expression into desired type. ½
  - (a) typing (b) type casting
  - (c) update (d) change
- (ii) In method overloading the method name is same, but changes must be in, ½
  - (a) Type of arguments (b) Number of arguments
  - (c) Sequence of arguments (d) Any of these
- (iii) \_\_\_\_\_ are just used for Inheritance. ½
  - (a) Abstract class (b) Base Class
  - (c) Derived class (d) None
- (iv) \_\_\_\_\_ is used to take a part of a string. ½
  - (a) copy ( ) (b) compare ( )
  - (c) length ( ) (d) substring ( )

(C) Answer the following in one sentence :—

4

- (i) What is MSIL ?
- (ii) What is (? :)?
- (iii) What are constants ?
- (iv) What are events ?

2. (A) State and explain the difference between C++ and C#. 6  
(B) Explain the .NET framework. 6
- OR**
3. (A) State and explain the characteristics of C#. 6  
(B) What is .NET approach ? State and explain its advantages. 6
4. (A) State and explain the structure of C# program. 6  
(B) What are the data types supported by C# ? Explain. 6
- OR**
5. (A) What is command line argument ? Explain. 6  
(B) Explain :  
(i) Default Values  
(ii) Reference type  
(iii) Constant. 6
6. (A) What are bitwise operators ? Explain. 6  
(B) Write a program to check whether Input year is Leap year or No: in C#. 6
- OR**
7. (A) Write a program in C# to print table of a number. 6  
(B) How multiple decision making is done in C# ? Explain with example. 6
8. (A) State and explain types of Parameters used in method. 6  
(B) Write a program in C# to print transpose of a matrix. 6
- OR**
9. (A) How strings are handled in C# ? Explain with example. 6  
(B) Write a program to search a number in an array using sequential search. 6
10. (A) State and explain the difference between structure and class. 6  
(B) What is enumerator ? Explain. 6
- OR**
11. (A) What are constructors ? Explain types of constructors. 6  
(B) Explain the following :-  
(i) this  
(ii) static members. 6
12. (A) What are Interfaces ? Explain. 6  
(B) What is operator overloading ? Explain. 6
- OR**
13. (A) What are delegates ? Explain. 6  
(B) What is an Abstract class ? Explain with example. 6