

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. $\frac{1}{2}$
- (ii) _____ is called automatically whenever an object is destroyed. $\frac{1}{2}$
- (iii) In operator overloading it is not possible to change _____ and _____ of an existing operator. $\frac{1}{2}$
- (iv) _____ is used for multiple decision making. $\frac{1}{2}$

(B) Choose the correct alternative :

- (i) _____ is used to convert the result of an expression into desired type. $\frac{1}{2}$
 - (a) typing (b) type casting
 - (c) update (d) change
- (ii) In method overloading the method name is same, but changes must be in, $\frac{1}{2}$
 - (a) Type of arguments (b) Number of arguments
 - (c) Sequence of arguments (d) Any of these
- (iii) _____ are just used for Inheritance. $\frac{1}{2}$
 - (a) Abstract class (b) Base Class
 - (c) Derived class (d) None
- (iv) _____ is used to take a part of a string. $\frac{1}{2}$
 - (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 ?



(i) State and explain the difference between C++ and C#.

(B) Explain the .NET framework.

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 Not 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