

AP-501

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 No. 1 carries 8 marks and all other questions carry 12 marks.

(3) Assume suitable data wherever necessary.

1. (A) Fill in the blanks :

2

(i) C# provide special methods known as _____ methods to provide access to the data members.

(ii) When an instance method declaration includes the abstract modifier, the method is said to be an _____.

(iii) Boxing converts a value type on the stack to _____ type on the heap.

(iv) The data members of a class by default are _____.

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(Contd.)

(B) Choose the correct alternatives : 2

(i) What is the return type of constructor ?

- (A) int
- (B) Float
- (C) Void
- (D) None of the mentioned

(ii) The correct way of declaration of object of following class is ?

Class name

- (A) name n = new name();
- (B) n = name();
- (C) name n = name();
- (D) n = new name();

(iii) CLR is the .NET equivalent of which virtual machine ?

- (A) JVM
- (B) Common language runtime
- (C) Common type system
- (D) None of these

(iv) C# does not support which constructor ?

- (A) Parameterized
- (B) Parameterless
- (C) Class
- (D) Method

(B) Describe copy constructor with example. 6

OR

11. (A) Explain enumerator type conversion. 6

(B) Describe static members and static constructor with example. 6

12. (A) Explain implementing interface with example. 6

(B) Explain : 6

- (i) Unary operator overloading
- (ii) Delegates.

OR

13. (A) Describe binary operator overloading in detail. 6

(B) Explain : 6

- (i) Multicast delegates
- (ii) Standard numeric format.

- (C) Answer in **ONE** sentence : 4
- (i) What is the use of ternary ? : Operator ?
 - (ii) State the use of output parameter.
 - (iii) What is method overloading ?
 - (iv) What is meant by enumeration ?
2. (A) Compare and contrast between C# and C++. 6
- (B) Enumerate major services provided by CLR. 6

OR

3. (A) State and explain various applications provided by C#. 6
- (B) Give and explain the characteristics of C#. 6
4. (A) What is literal ? Explain various types of literals. 4
- (B) What are the two categories of value type ? Explain. 4
- (C) Describe unboxing with suitable example. 4

OR

5. (A) Explain application with multiple main methods. 4
- (B) Describe Reference type and Default values in brief. 4
- (C) Explain scope of variable with example. 4

6. (A) Explain various relational operators with example. 4
(B) Write a program to print prime numbers upto 200. 4
(C) Explain while statement with example. 4

OR

7. (A) Explain conditional and bitwise operators. 4
(B) State and explain nested if—else statement with example. 4
(C) Describe mathematical functions in brief. 4
8. (A) Describe Array list class with suitable example. 4
(B) Write a program in C# to swap two numbers without using third variable. 4
(C) Explain comparing string with example. 4

OR

9. (A) Explain pass by reference with example. 4
(B) Describe 2-D Array initialization and declaration with example. 4
(C) Write a program in C# to copying, searching and inserting strings. 4
10. (A) State and explain significance difference between classes and structs. 6