

**AMIETE – CS/IT (NEW SCHEME)**

Time: 3 Hours

**JUNE 2012**

Max. Marks: 100

**PLEASE WRITE YOUR ROLL NO. AT THE SPACE PROVIDED ON EACH PAGE IMMEDIATELY AFTER RECEIVING THE QUESTION PAPER.**

**NOTE: There are 9 Questions in all.**

- Question 1 is compulsory and carries 20 marks. Answer to Q.1 must be written in the space provided for it in the answer book supplied and nowhere else.
- The answer sheet for the Q.1 will be collected by the invigilator after 45 minutes of the commencement of the examination.
- Out of the remaining EIGHT Questions answer any FIVE Questions. Each question carries 16 marks.
- Any required data not explicitly given, may be suitably assumed and stated.

**Q.1 Choose the correct or the best alternative in the following: (2×10)**

a. File extension of response file is\_\_\_\_\_.

- (A) .exe (B) .rsp  
(C) .csc (D) None of these

b. The name of the default Response file is\_\_\_\_\_.

- (A) CSC.rsp (B) CTS.rsp  
(C) Clr.rsp (D) None of these

c. Compare To() method of system.String performs\_\_\_\_\_.

- (A) comparison of two strings (B) joining of two strings  
(C) removing of a string (D) none of these

d. To insert a single string quote literal in a sentence, the Escape sequence character is \_\_\_\_\_.

- (A) a. \' (B) b. \"  
(C) c. \\ (D) none of these

e. Exception is a condition that is caused by \_\_\_\_\_ error in the program.

- (A) compile\_time (B) run\_time  
(C) diagnostic\_time (D) load\_time

f. \_\_\_\_\_ is a delegate type class member that is used by the object as class to provide notification to other objects that an event has occurred.

- (A) Event (B) Modifier  
(C) System (D) None of these

- g. The .NET Framework consists of\_\_\_\_\_ application languages
- (A) C#, VB.Net (B) Managed C++and Jscript.Net  
(C) Both (A) and (B) (D) none of these
- h. \_\_\_\_\_means adding new methods with the same name but of different signatures.
- (A) Functions (B) Overriding  
(C) Inheritance (D) Overloading
- i. Name the class from where everything is derived in .NET
- (A) System.Object (B) Document.object  
(C) System. Class (D) None of the above
- j. How do you inherit derived class from a base class in C#.NET?
- (A) Referencing super class  
(B) By using colon and then the name of the base class  
(C) Naming base class  
(D) None of the above

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**Answer any FIVE Questions out of EIGHT Questions.**  
**Each question carries 16 marks.**

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- Q.2** a. What are the building blocks of .NET platform? (8)
- b. What are the main features of C# language? (8)
- Q.3** a. What do you understand by pre processor directive? State different types of preprocessor symbols with their meaning. (8)
- b. Briefly explain the use of Response file? How do you instruct the C# compiler to use a response file? Does C# compiler support multiple response files? (8)
- Q.4** a. Write code segments in C# to sort arrays by implementing static method of sorting on numeric as well as string data. (8)
- b. What are the core members of System.Object, what is their meaning? (8)
- Q.5** a. What is polymorphism? Illustrate with an example. (8)
- b. Define a base class called Animal with following members:  
(i) a string data member to store the name of the animal  
(ii) an integer data member to store the age of the animal in years (8)

- Q.6** a. What are Exceptions in C# and .Net ? How they are handled in C# and .NET? (8)
- b. What do you understand by Garbage collection in C#? Explain the significance of System.GC Type. (8)
- Q.7** a. What are implementation inheritance and interface inheritance? How to prevent a class from being inherited in C#.NET? (8)
- b. Write a program to illustrate explicit interface implementation which allows a method to specify explicitly the name of the interface it is implementing. (8)
- Q.8** a. What are asynchronous delegates? When they are used? (8)
- b. What is the purpose of Event? Where is it used? How is it established? (8)
- Q.9** Write short notes on the following:
- (i) Cross language inheritance
- (ii) Shared assembly (8×2)