

Dr Jagpreet Sandhu.

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT
TEST-3 EXAMINATION (DEC 2018)
B-Tech (7th SEM)

Course Code: 12B1WCI734

Max. Marks: 35

Course Name: C# and VB.Net

Max. Time: 2 HRS

Course Credit: 3

Note: All questions are compulsory. Write to the point. Attempt all questions at one place.

- Q. No. 1 [CO-5] [3 Marks]
List the functions associated with System.Object class and override any two methods.
- Q. No. 2 [CO-3] [3 Marks]
Mention the rule of Thumb when you are constructing multiple catch blocks for a single try block, explain with a suitable C# code?
- Q. No. 3 [CO-3] [3 Marks]
Explain boxing and unboxing mechanism in C#, demonstrate the concept with a suitable C# code?
- Q. No. 4 [CO-4] [3 Marks]
Define Collections and explain three collection classes used in C# programming language. Write a program in C# to perform the Push and Pop operations used in stacks using a collection class.
- Q. No. 5 [CO-7] [3 Marks]
Write a program in C# to illustrate how delegate object is used to call methods dynamically.
- Q. No. 6 [CO-4] [5 Marks]
What is Structured Exception Handling (SHE)? Differentiate between Application Exception and System Exception. Create a User defined exception to handle division by zero exception?
- Q. No. 7 [CO-3] [5 Marks]
What are jagged arrays? Write a program in C# to discuss the concept of jagged arrays. Also, discuss how you will perform the binary search using System.Array class?
- Q. No. 8 [CO-6] [5 Marks]
Natural language processing is the most researched topics in present scenario. The concept is used when one language is to be understood or converted into another language. Amit was interested in NLP but he had little idea of the topic. He decided to work under a professor. Since he was good in programming, the professor asked him to implement his earlier research paper. He was required to make a Hindi to Marathi Translator. The various tasks assigned to him were as follows.
Design an interface that contains four buttons Login, Admin, About Us, and Exit. The buttons should link to the various forms explained as follows. The login form should lead to a login dialog box, which contains a text box for user name and a text box for password. On entering the user name and password, the user should be taken further. The next form should show the corresponding Marathi word for the English word

selected by user.

At this point, Amit made following suggestion to professor:

1. The form may contain a Save button, so that the word seen by the user on that day can be saved with data in a file.
2. This file may be used later in order to judge the person.
3. The person should be able to change the font and the colour of the form, in order to implement this, two dialog boxes must be used in the application.

Now, help Amit to accomplish the task by designing these forms and make the requisite changes in the third form.

Q. No. 9

[CO-5] [5 Marks]

- (a) Create a class called Webserver. Create two methods DownloadFile() and DownloadImage() in the class. Now, in the Main Class create two threads T1 and T2. Associate T1 with DownloadFile() and T2 with DownloadImage(). Now run the threads and also depict the use of the Sleep method.
- (b) In part a, set a highest priority for T1 and a lowest priority for T2.
- (c) Modify part b to implement the concept of thread pool.

JUT B EXAMINATION