SLIATE

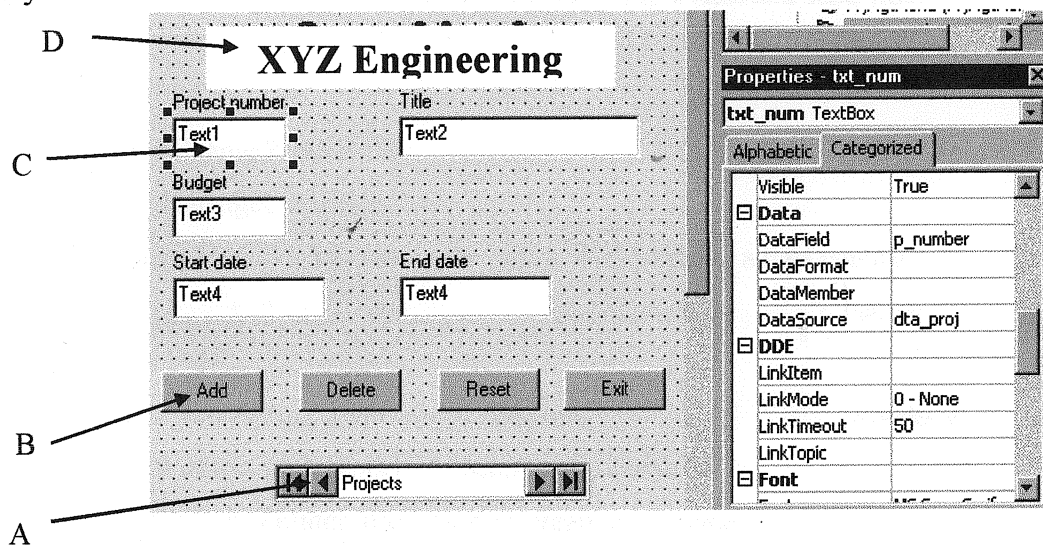*SRI LANKA INSTITUTE OF ADVANCED TECHNOLOGICAL EDUCATION*

(Established in the Ministry of Higher Education, vide in Act No. 29 of 1995)

Higher National Diploma in Engineering
Second Year, Second Semester Examination – 2016
IT2203- Information Technology II B

Instructions for Candidates:
Answer four questions only
Each question carries 25 marks.

No. of questions : 05
No. of pages : 04
Time :Two(02) Hours

Q1) Consider the following Visual Basic form designed for "XYX Engineering" company.

i). Identify the following object controls. **[Marks 4]**

   a. A
   b. B
   c. C
   d. D

ii). Describe the usage of the above control objects A, B, C and D with their important properties. **[Marks 8]**

iii). What is the usage of arrows of the control object A.? **[Marks 4]**

iv). The "XYX Engineering" maintains lot of details in the database called **"project.mdb"**. Assume that the database **project.mdb** contains a table called **"ProjectList"**. What are the useful properties of control object A that allows you to link the table **ProjectList.** **[Marks 4]**

v). What are the values of the properties that you mentioned in part (iv) **[Marks 5]**

Q2) ADO (ActiveX Data Objects) is a very powerful and efficient technique used as a Data Control.

    i).   Explain how to add an ADO control to the **Tool Box**?   **[Marks 3]**

    ii).   Describe the following properties of the ADO control.   **[Marks 4]**

        a. ConnectionString   c. EOF

        b. RecordSource   d. BOF

    iii).   Describe the following methods of the ADO control.   **[Marks 4]**

        a. MoveFirst   c. AddNew

        b. MoveNext   d. Update

    iv).   Write the syntax of event procedure of the following events and state when they occur.   **[Marks 12]**

        a. WillMove

        b. WillChangeRecord

        c. WillChangeComplete

    v).   Explain how to bind a text box value with a field by using a data control.

        [Marks 2]

Q3)

    i).   Give four advantages of user defined function.   **[Marks 4]**

    ii).   **Connection** object represents a connection to a database that is used as a data source. Write user defined procedure to create and connect a database called **"Student.mdb"** which is located at hard disk.   **[Marks 5]**

    iii).   Suppose that the "Student.mdb" database contains two tables called **"StudentDetails"** and **"StudentMarks"**. Create a user defined function that can be used to connect with <u>any table</u> in the database.   **[Marks 5]**

    iv).   Write a code to add the following student details into **"StudentDetails"** table.

        [Marks 5]

        • Student Id: S001   • DOB: 10/09/2000

        • Student Name: Ravi

    v).   Write a user defined function to return total marks of a given student Id. Assume that the table **"StudentMarks"** contains all subject marks of all students.   **[Marks 6]**

Q4)

i). Write syntax of the following statements on visual basic 6.0 explaining how it works with using an example. **[Marks 6]**

     a. For loop   b. Do....While loop

ii). Suppose you have collected the following meter readings during an **"Oms Law"** practical.

Meter Reading#	Volt meter Reading(V)	Amp meter reading(I)
1	2	0.5
2	4	1.01
3	6	1.5
...	...	...
....	...	..

     a. Identify the fields and their data types to store the above data in a table using MS Access. **[Marks 4]**

     b. Write visual basic codes to create fields you identified on part (a) to create a record set object. **[Marks 4]**

     c. Design a Visual Basic form to display every Meter Reading including Meter Reading number, Voltmeter reading and Amp meter reading one by one separately. Also your form should allow to perform following activities. **[Marks 4]**

           • Add new Meter Reading

           • Delete existing Meter Reading

     d. Write down event procedures for the following tasks.

           i. To display current Meter Reading   **[Marks 2]**

           ii. To add new Meter Reading   **[Marks 3]**

           iii. To delete a Meter Reading   **[Marks 2]**

Q5)

i). What is the purpose of using a combo box as a record display object?

[Marks 4]

ii). Briefly describe how you could insert a new record to a table through a combo box. [Marks 4]

iii). Briefly describe the drawbacks of DAO compared to ADO. [Marks 5]

iv). Describe the following: [Marks 6]
   a. Data Grid Control
   b. MSG Box

v). Assume that **"StudentInfo"** table consist several student registration numbers under **"RegNo"** field. Write down a VB code to display those registration numbers to a combo box called **"cmbregno"**. Assume that the database connection is already available. [Marks 6]