Informatics Practices 2006 (Outside Delhi)

General Instructions :

1. This question paper is divided into 3 sections.
2. Section — A consists of 30 marks.
3. Section — B and Section — C are of 20 marks each.
4. Answer the questions after carefully reading the text.

SECTION - A

Q. 1. Answer the following questions:

i. Explain the term Data Dictionary using suitable example. **2**
ii. What is an Inventory control system? Name any two entities or tables that could be a part of this system. **2**
iii. What do you understand by a Many-to-one relationship? Explain with example. **2**
iv. Expand the term UML and explain its usage. **2**
v. Explain the concept of client-server computing with the help of examples. **2**

Q. 2. Answer the following questions:

i. What do you understand by the term IDE? Why is Visual Basic called an IDE? **2**
ii. Write the names of any two properties, which are common to textbox object, label object and command button object. **2**
iii. Differentiate between the Load and Show methods of a form object. **2**
iv. What is th purpose of the ADO Data Control? Name the two properties of the ADO Data Control that can be dynamically set during run-time to change the database. **2**
v. Differentiate between a form module and class module of Visual Basic. **2**

Q. 3. Answer the following questions:

i. What are DCL commands? Name any two DCL commands. **2**
ii. State the difference between SQL and PLISQL. **2**
iii. Explain the usage of NEXT MONTH function of SQL with the help of an example. **2**
iv. What is the use of the %ROWTYPE attribute? Explain with the help of an example. **2**
v. What is a trigger? Name two types of triggers available in PL/SQL. **2**

SECTION - B

Q. 4. Read the following case study and answer the questions that follow:

The Shop n Save store has developed the following data entry screen for its operations. The store offers three different types of membership discount schemes for its regular customers. Platinum members get a discount of 10% on all their purchases, Gold members get 5% and Silver members get 3% discount.

The list for the above form is as follows:

Object Type	**Object Name**	**Description**
Form	frmCust	The Main Form Object
Text Box	txtProduct	To enter name of the product
	txtQty	To enter quantity sold
	txtRate	To enter rate per unit of the product
	txtAmount	To display the total amount as quantity * rate
	txtDiscount	To display the discount amount based on membership type
	txtNet	To display net amount as amount- discount
Option Buttons	optRegular	To specify regular pizza
	optPan	To specify pan pizza

Option Buttons	optPlatinum	To specify Platinum membership
	optGoldsss	To specify Gold membership
	optSilver	To specify Silver membership
Command Buttons	cmdCale	To calculate the amount, discount and net amount
	cmdExit	To close the application

i. Write the commands to disable the textboxes txtAmount, txtDiscount and txtNet. **1**

ii. Write the code for cmdCalc to calculate the amount, discount and net amount as per the given descriptions and conditions. **4**

iii. Write the command to remove the decimal part from the textbox txtNet so that the net amount contains only the integer portion in Rupees. **1**

iv. Write the code for cmdExit to close the application, hut before the application is closed it should check the net amount and if the net amount > 10,000 the membership of the customer should be upgraded to the next higher level and a message box informing the customer should be displayed. For example if the customer already has Silver membership it should be upgraded to Gold and he should be informed of the same using a message box. **4**

Q. 5. Answer the following questions:

i. Find the errors from the following code segment and rewrite the corrected code underlining the correction made: 2

```
Private Sub Changer (a ; b as Integer)
        C = a + b
        Select Case c
                Case I
                        Print "Good"
                Case 2, 3
                        Print "Average"
                Default case
                        Print "Poor"
Sub End
```

ii. Give output of the following statements: **2**

(i) UCASE(MID("Advertisment",7,3))

(ii) (3 * 4 > 3 + 5) AND(2 ^ 3 +7/2)

iii. Change the following code using DO..WHILE without effecting the output: **2**

```
DIM arr (5)
counter = l
DO UNTIL counter> 5
arr(counter) = counter *counter
```

```
        IF counter =2 THEN
            Print arr (counter)
        END IF
    counter = counter + I
    LOOP
```

iv. Write a Visual Basic procedure which takes a number as argument and displays the reverse of the number. For example if the argument passed is 1357 it should display 7531. **4**

SECTION - C

Q. 6. Read the questions given below and answer accordingly:

i. Find the output of the following code in PL/SQL: **2**

```
DECLARE
    X NUMBER: = l;
    V NUMBER: = 6;
    Z NUMBER;
BEGIN
    LOOP
        Z: = X * Y;
        IF X + Y 10 THEN
        DBMS_OUTPUT.PUT_LINE(TOCHAR(Z));
        ELSE
            EXIT;
        END IF;
        X::X + 3;
        Y: =Y - 2;
        END LOOP;
    END;
```

ii. Find the errors from the following PL/SQL code and rewrite the corrected code underlining the correction made: **2**

```
DECLARE
   v_no Emp.EName%ROWTYPE;
   v_sal NUMBER(7,2) = 1000;
BEGIN
        LOOP
            SELECT Sal TO v_sal FROM Emp WHERE Eno=v_no;
            v_no = v_no +1;
        EXIT FOR v_no> 5;
        END; LOOP;
END
```

iii. Name the different types of modes formal parameters can have in a PLISQL procedure. If the mode is not specified in a procedure what will be the default mode? **2**

iv. Write a PL/SQL procedure called MULTI_TABLE that takes two numbers as parameter and displays the multiplication of the first parameter till the second parameter. **4**

Q. 7. Answer the questions based on the table Hospital given below:

Table : Hospital

Column Name	Data Type	Size	Constraint	Description
P_No	NUMBER	4	PRIMARY KEY	Patient Number
Patient_name	VARCHAR2	30	NOT NULL	Name of the patient
Department	VARCHAR2	20		Department to which patient is admitted
Doc_name	VARCHAR2	30	NOT NULL	Name of the doctor
Dt_Birth	DATE			Date of birth of the patient
Consultation_Fee	NUMBER	5, 2		Consultation fees

i. Write the SQL command to create the table Hospital including the constraints. **2**

ii. Write the SQL command to display the details of all the patients whose date of birth is after 1st Jan 2000 department wise. **2**

iii. Write a PL/SQL code to decrease the consultation fees by 5% for a patient number accepted from the user if the year of birth of patient is before 1950. **3**

iv. Write PL/SQL code using an explicit cursor to display the details of all the patients in the SURGERY department. The code should also display the total consultation fees of all such patients. **3**