

INFORMATICS PRACTICES - XII

Time allowed : 3 hours

Maximum Marks : 70

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"

- Q1. Answer the following questions:
- (a) Give any four- application areas of Databases 2
 - (b) Explain the term Client Server Computing using suitable example 2
 - (c) What does Object Oriented modeling technique means? Why do we use UML? 2
 - (d) Differentiate between ER Modeling and Object Modeling Techniques? 2
 - (e) What is Tomcat and Python 2
- Q2. Answer the following questions
- (a) Define the term errors. Give any two general types of errors with respect to Visual Basic error object. 2
 - How many values does a Procedure and a Function return? 2
 - (c) Differentiate between Do While Loop and DoUntil Loop of VB Giving a suitable example of each 2
 - (d) Write the purpose of a Bound Control. Name two data aware properties of data bound control 2
 - (e) Write one difference and one common characteristic between a control and a variable in Visual Basic 2

Q3. Answer the following questions

- (a) How do we restrict duplicate rows in SQL SELECT Query? Give Example 2
- (b) Define SQL. Explain SQL subcategories giving at least one example command in each category 2
- (c) What is a Cursor? Explain the steps to follow while writing a Cursor 2
- (c) Differentiate between Row Level Triggers and Statement Level triggers using suitable Example 4

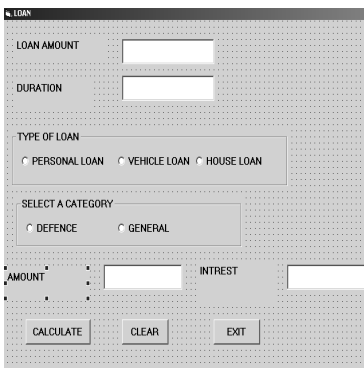
SECTION – "B"

Q4. Read the following case study and answer the questions the followings:

Mr. Rouble of paisawasool Financiers needs to calculate the interest amount due from his clients. He ask his software programmer to design an interest calculator which will calculate the compound interest and amount due. The programmer opts from Visual Basic Language to develop this and creates the following form: Criteria for rate of interest for loan calculation are given as under

	Personal	Vehicle	House
Defence	14	12	10
General	17	13	11

Object Type	Object Name	Description
Form	Loan	The main form object
Text Box	TxtLoan Txduration Ttxtamount Ttxtinterest	Loan amount Duration of a loan Calculate Amount Interest amount
Option Button	Optpersonal Optvehicle Ophouse Optgeneral Optdefence	Personal Vehicle House General Defence
Command button	Cmd calc Cmdclear cmdexit	Button for calculation Button for clear Button for exit
Frame	Frm1 Frm2	Type of loan Category



- (a) Write the code for the click event of the command button cmd calc to calculation the compound interest and amount depending on the principal, rate and time. The compound interest is calculated as per $P * (1 + R / 100)^T$ and amount as (Principal +Compound interest) 2
 - (b) Write the code for the click event of the command button cmdclear which clear all text box and clear all option button 2
 - (c) Write the code for the form load event to disable frame frm1, frm2 and textbox txtamount,txtintrest and remove the focus from these two textbox if tab key is pressed and make the form maximize. 2
 - (d) Write the code for enable frm2 when focus is moved from duration i.e. txduration 2
 - (e) Write the code to allow only numeric entry and backspace key in textbox txtloan 2
- Q5. Answer the following questions:
- (a) Find the Output of the following Code 2

For I = 0 to 5

For J = 0 to I-1

S = S + (I+J-1)

Next J

Next I

Print S

- (b) Find the errors from the following code segment and rewrite the corrected code underlining the correction made 2

```
Dim Y% , X%,  
X = 0  
Do Until Y = 1  
Print Y
```

```
Y = MsgBox("Enter a value , value input")  
Total = Total+Y  
End Loop
```

- (c) Rewrite the following code Segment using IF..Elseif...EndIf instead of Select Case 2

Select Case Marks

```
Case is >=85  
Comment.Caption = "Excellent"
```

```
Case is >=60  
Comment.Caption = "Above Average"
```

```
Case is >=50  
Comment.Caption = "Average"
```

```
Case else  
Comment.Caption = "Work Harder"
```

End Select

- (d) A visual Basic Function that takes an integer argument N and returns the sum of all the even numbers less then the given number N 4

SECTION – "C"

Q6. Read the questions given below and answer accordingly

- (a) Write the output produced by the following part of code in PL/SQL 2

```
DECLARE  
Y NUMBER;  
X NUMBER;  
BEGIN  
Y:=5;  
FOR X IN 1 ..4  
LOOP  
Y:= X+Y;  
DBMS_OUTPUT.PUT_LINE(Y);  
END LOOP;  
END;
```

- (b) Write the output produced by the following part of code in PL/SQL 2

```
DECLARE  
X NUMBER;  
Y NUMBER;  
BEGIN  
Y:=5;  
FOR X IN 1..5  
LOOP  
IF X>Y THEN  
DBMS_OUTPUT.PUT_LINE(Y);  
ELSE  
DBMS_OUTPUT.PUT_LINE(X);  
END IF ;  
Y:=Y-1;  
END LOOP;  
END;
```

- (c) What does a variable mean and what is meant by its scope? State using suitable example. 2

- (d) Write a PL/SQL Function ODDEVEN to return vale TRUE if the number passed to it is Even else will return FALSE. 4

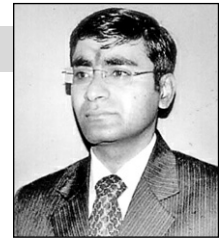
Q7. Use the following structure of Customer table to answer the following questions:

Column Name	Cust_ID (Primary Key)	Cust_name	Cust_add1	Cust_add2	Pin_code	Cust_phone
Data Type	Number	Varchar2	Varchar2	Varchar2	Number	Varchar2
Length	7	30	20	20	6	10

- (a) Write a SQL Command to create the above table including Constraints. 2
- (b) write a PL/SQL code to modify all the CUST_PHONE numbers by joining '2' before each phone number if it contains 7 characters 2
- (c) Write a PL/SQL code to modify all the CUST_PHONE number by removing '2' if it start with '2' 2
- (d) Write a PL/SQL code to create two statement level triggers Trigbefore UpdateCustomer and TrigAfter UpdateCustomer before and after UPDATE statement respectively on the table Customer which signals "starting Update" to signify that modification of records has started and "End of Update" message to signify that modification is over. 4

TIPS

1. Avoid over writing & cutting.
2. Practise sample papers. Get them checked by your teachers.
3. Be very focused in your answers. Answer to the point.
4. Take care of time management.
5. Complete the question paper at least 10 minutes before.



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