Series SHC/1

Code No. 90/1

Roll No. | | | | | | | | |

Candidates must write the Code on the title page of the answer-book.

- Please check that this question paper contains 7 printed pages.
- Code number given on the right hand side of the question paper should be written on the title page of the answer-book by the condidate.
- Please check that this question paper contains 7 questions.
- **Please write down the serial number of the question before attempting it.**

INFORMATICS PRACTICES

Time allowed : 3 hours] *[Maximum marks: 70*

Instructions : *(i) This question paper is divided into 3 sections.*

(ii) Section A consists of 30 marks.

(iii) Section B and Section C are of 20 marks each.

(iv) Answer the questions after carefully reading the text.

Section-A

1. Answer the following questions :

(a) Define (i) Freeware (ii) Shareware 2

(b) Write one point of difference between front end and back end with one example of each. 2

(c) Write one example each of "one to many" and "many to many" relationships between two entity sets. 2

(d) What is the purpose of Data Mining? 2

(e) During System Development Life Cycle, in which phase is the scope and true nature of problem determined? Explain in brief with the help of an example. 2

2. Answer the following questions :

(a) How many value(s) does a Procedure and a Function return ? 2

(b) Distinguish between Single Document Interface and Multiple Document Interface. Write one example each of SDI and MDI type application. 2

(c) What is Selection statement ? Name any two selection statements that VB provides. 2

(d) What are Events ? What are Event Procedures ? How are they related ? 2

(e) What is a Bound Control? Name any two data aware properties of bound controls. 2

3. Answer the following questions :

(a) Which statement must be present in a simple loop (Loop.. Endloop) so that it does not become an infinite loop ? 1

(b) Suggest parameters mode (IN/OUT/IN OUT) for the following : 1

(i) Parameter can be used as a normal variable.

(ii) Passed value must not get changed.

(c) Write two points of differences between SQL and PL/SQL. 2

(d) How are triggers similar to Constraints ? Write one point. 2

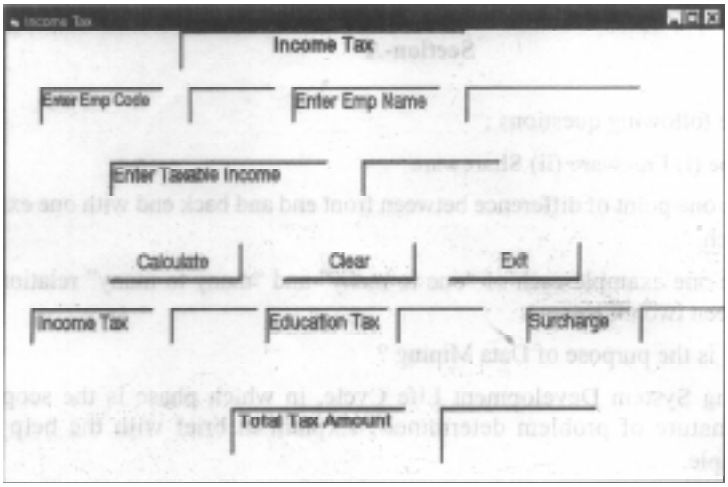
(e) What is the purpose of cursor in PL/SQL ? Name the types of cursors used in PL/SQL. 2

(f) Why do we use Roll back statement ? Explain in brief with the help of an example. 2

Section-B

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

ABC Company has developed the following interface to enter and display data related to Income tax of employees.



The form details of the above form are given in the following table :

Object Type	Object Name	Description
Form	FrmSalary	The main Form Object
Text box	TxtEmpCode	To enter code of Employee.
	TxtName	To enter Name of Employee.
	Txtlncome	To enter Taxable Income of Employee.
	TxtlTax	To display Income tax
	TxtEdTax	To display Educational tax
	TxtSurcharge	To display Surcharge
	TxtTotalTax	To display Total Tax to be paid by the employee.
Command Button	cmdCalculate	To calculate Income tax, Education Tax, Surcharge and Total Tax
	cmdClear	To clear all the values in Text boxes
	cmdExit	To close the application.

Write code to implement the following :

(a) When the form loads text boxes for Income tax, Education Tax, Surcharge and Total Tax Amount should be disabled. They should be enabled only when Calculate command button is clicked. 2

(b) Taxable Income entered should be numeric data. 2

(c) When the user clicks the Clear command button, textboxes EmpCode and EmpName should be set to blank and other textboxes should be set to zero. 2

(d) When Calculate command button is clicked, Income tax, Education Tax, Surcharge and Total Tax (sum of Income Tax, Education Tax, Surcharge) is displayed in their respective text boxes based on the following criterion. 4

Taxable Income	Income Tax	Education Tax	Surcharge
UptoRs. 1,00,000	Nil	Nil	Nil
Rs. 1,00,001 to 1,50,000	10% of the amount exceeding Rs. 1,00,000	2% of Taxable Income	Nil
Rs. 1,50,001 to 2,50,000	Rs. 5,000+20% of amount exceeding Rs. 1,50,000	2% of Taxable Income	Nil
Rs. 2,50,001 and above	Rs. 25,000+30% of the amount exceeding Rs. 2,50,000	2% of Taxable Income	l% of Taxable Income.

5. Answer the following questions :

(a) How many times will the following loop execute ? 2

```
1 = 6
Do While I > = -1
I -1-2
Print I
Loop
```

(b) Write the output that the following code segment will generate 2

```
Stringl = "Class XII"
String2 = "XI"
Print Stringl + String2
Print InStr (Stringl, String2)
Print Mid (LCase(Stringl), 6, 3 )
Print Int(4.7) + Len(String 2)
```

(c) Rewrite the following code using If Elself 2

```
Select Case Code
Case Is > 45
    Messagel = "Ersor"
Case l0 To 20
    Message 1 = "Accounts"
Case 21 To 30
    Message 1 = "Personnel"
Case 31 To 45
    Message 1 = "EDP"
Case Else
    Message 1 = "Access Denied"
End Select
```

(d) Write a function that receives two integers as arguments and returns the following: 4

0 if both are equal

- 1 if first is greater than the second

1 if second is greater than the first

Section-C

6. Read the questions given below and answer accordingly :

(a) Write PL/SQL cursor declaration to store Employee code(EMPNO), Employee name(ENAME) of employees from Emp table who are located (LOC) in Delhi. 2

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

```
declare
cnt  number;
num  number;
begin
cnt: - 8;
num : = 4;
while  cnt>4  loop
     num : = num-2;
     cnt: = cnt-1;
ifcnt>4then
     dbms_output.put_line(cnt);
end  if;
end  loop;
dbms_output.put_line(num);
end;
```

(c) Find error(s) in the following PL/SQL code and rewrite the correct code after underlining the corrections made. 2

```
DECLARE
     CTR  NUMBER;
     SUM1  NUMBER;
```

```
BEGIN
     CTR : = 0;
     SUM1 : = 0;
LOOP
       SUM1 : = SUM1 + CTR;
       PRINT(TO_CHAR(SUM1));
       CTR : = CTR-2;
       IF CTR > 2 THEN
          EXIT;
END LOOP;
```

(d) Create a procedure called Selectemployee that selects the first name, last name, join date, and salary for employee with employee code 100 from EMP table into variables and displays values stored in these variables.

Table Emp consists of fields with field names : ID,

FIRST_NAME, LAST_NAME, JOIN_DATE, SALARY 4

7. Answer questions based on the table **Student** given below :

Table : **Student**

Column Name	**Data Type**	**Size**	**Description**	**Constraint**
RollNumber	NUMBER	2	Student's Roll number	Primary key
Name	VARCHAR2	25	Name of Student	NOT NULL
Class	VARCHAR2	3	Class of Student	
Stream	VARCHAR2	15	Stream opted by the Student	
TotalMarks	NUMBER	8,2	Total marks scored by the student	
Grade	VARCHAR2	1	Grade scored by the student	Can be'A' or 'B' or 'C

(a) Write SQL command to display Roll numbers, names, Total marks and grades of all the students in "Nonmedical" stream sorted by Total marks in descending order. 2

(b) Write SQL command to create a view consisting of all students in "Medical" stream and who have scored "A" grade. 2

(c) Write PL/SQL Procedure that takes in Student's Roll number as a parameter and increases Total marks of that student by 2% (as he/she is a Sports person.) 3

(d) Create a Trigger to display the name and stream of Student(s) whose record(s) is/are being deleted from the Student table. 3