## 1.1 Identify the problems(if any) in the below declarations:

DECLARE

V\_Sample1 NUMBER(2);

V\_Sample2 CONSTANT NUMBER(2) ;

V\_Sample3 NUMBER(2) NOT NULL ;

V\_Sample4 NUMBER(2) := 50;

V\_Sample5 NUMBER(2) DEFAULT 25;

Example 1: Declaration Block

## 1.2 The following PL/SQL block is incomplete.

Modify the block to achieve requirements as stated in the comments in the block.

DECLARE --outer block

var\_num1 NUMBER := 5;

BEGIN

DECLARE --inner block

var\_num1 NUMBER := 10;

BEGIN

DBMS\_OUTPUT.PUT\_LINE('Value for var\_num1:' ||var\_num1);

--Can outer block variable (var\_num1) be printed here.IfYes,Print the same.

END;

--Can inner block variable(var\_num1) be printed here.IfYes,Print the same.

END;

Example 2: PL/SQL block

## 1.3 Write a PL/SQL program

Write a PL/SQL program to display the details of the employee number 7369.

## 1.4 Write a PL/SQL program

Write a PL/SQL program to accept the Employee Name and display the details of that Employee including the Department Name.

## 1.5.Write a PL/SQL block to increase the salary of employees

Write a PL/SQL block to increase the salary of employees either by 30 % or 5000 whichever is minimum for a given Department\_Code.

Find out 30% of salary, if it is more than 5000, increase by 5000. If it is less than 5000, increase by 30% of salary

## 2.1 The following PL/SQL block attempts to calculate bonus of staff.

The following PL/SQL block attempts to calculate bonus of staff for a given MGR\_CODE. Bonus is to be considered as twice of salary. Though Exception Handling has been implemented but block is unable to handle the same.

Debug and verify the current behavior to trace the problem.

DECLARE

V\_BONUS V\_SAL%TYPE;

V\_SAL STAFF\_MASTER.STAFF\_SAL%TYPE;

BEGIN

SELECT STAFF\_SAL INTO V\_SAL

FROM STAFF\_MASTER

WHERE MGR\_CODE=100006;

V\_BONUS:=2\*V\_SAL;

DBMS\_OUTPUT.PUT\_LINE('STAFF SALARY IS ' || V\_SAL);

DBMS\_OUTPUT.PUT\_LINE('STAFF BONUS IS ' || V\_BONUS);

EXCEPTION

WHEN NO\_DATA\_FOUND THEN

DBMS\_OUTPUT.PUT\_LINE('GIVEN CODE IS NOT VALID.ENTER VALID CODE');

END;

Example 3: PL/SQL block

## 2.2 Rewrite the above block.

Rewrite the above block to achieve the requirement.

## 2.3: Write a PL/SQL program

Write a PL/SQL program to check for the commission for an employee no 7369. If no commission exists, then display the error message. Use Exceptions.

**Note:** Procedures and functions should handle validations, pre-defined oracle server and user defined exceptions wherever applicable. Also use cursors wherever applicable.

## 3.1. Write a function to compute age.

The function should accept a date and return age in years.

## 3.2 Write a procedure to find the manager of a staff.

Procedure should return the following – Staff\_Code, Staff\_Name, Dept\_Code and Manager Name.

## 3.3. Write a function to compute the following.

Function should take Staff\_Code and return the cost to company.

DA = 15% Salary, HRA= 20% of Salary, TA= 8% of Salary.

Special Allowance will be decided based on the service in the company.

< 1 Year Nil

>=1 Year< 2 Year 10% of Salary

>=2 Year< 4 Year 20% of Salary

>4 Year 30% of Salary

## 3.4. Write a procedure that accept Staff\_Code

Write a procedure that accept Staff\_Code and update the salary and store the old salary details in Staff\_Master\_Back (Staff\_Master\_Back has the same structure without any constraint) table.

Exp< 2 then no Update

Exp> 2 and < 5 then 20% of salary

Exp> 5 then 25% of salary

## 3.5. Write a procedure to insert details into Book\_Transaction table.

Procedure should accept the book code and staff/student code. Date of issue is current date and the expected return date should be 10 days from the current date. If the expected return date falls on Saturday or Sunday, then it should be the next working day