ASSIGNMENT A5

Write a PL/SQL code block to calculate the area of a circle for a value of radius varying from 5 to 9. Store the radius and the corresponding values of calculated area in an empty table named areas, consisting of two columns, radius and area.

1. Table Creation.

```
-- Create the AREAS table
  CREATE TABLE AREAS (
      RADIUS NUMBER(5),
      AREA NUMBER(14, 2)
  );
```

2. Operation

```
-- PL/SQL Block to calculate areas and insert into the AREAS table
  DECLARE
      pi CONSTANT NUMBER(4, 2) := 3.14;  -- Constant for pi
      radius NUMBER(5);                   -- Variable for radius
      area NUMBER(14, 2);                 -- Variable for area
  BEGIN
      radius := 10;  -- Starting radius
      WHILE radius <= 15 LOOP
          area := pi * POWER(radius, 2);  -- Calculate area
          INSERT INTO AREAS VALUES (radius, area);  -- Insert into table
          radius := radius + 1;  -- Increment radius
      END LOOP;
  END;
  /

  -- Select all records from the AREAS table
  SELECT * FROM AREAS;
```

OUTPUT:

```
Table created.
Statement processed.
```

RADIUS	AREA
10	314
11	379.94
12	452.16
13	530.66
14	615.44
15	706.5

```
6 rows selected.
```