Q1:

-- Q1.1: Anonymous PL/SQL block with declarative section

BEGIN

DBMS\_OUTPUT.PUT\_LINE('Hello World');

END;

/

-- Q1.1, including declarative section:

DECLARE

TODAY DATE := SYSDATE;

TOMORROW TODAY%TYPE;

BEGIN

TOMORROW := TODAY + 1;

DBMS\_OUTPUT.PUT\_LINE('Hello World');

DBMS\_OUTPUT.PUT\_LINE('Today is: ' || TO\_CHAR(TODAY, 'DD-MON-YYYY'));

DBMS\_OUTPUT.PUT\_LINE('Tomorrow is: ' || TO\_CHAR(TOMORROW, 'DD-MON-YYYY'));

END;

/

-- Q1.3: Anonymous block to format and display today's date and last day of the month

DECLARE

my\_date DATE := SYSDATE;

v\_last\_day DATE;

BEGIN

v\_last\_day := LAST\_DAY(my\_date);

DBMS\_OUTPUT.PUT\_LINE('Today is: ' || TO\_CHAR(my\_date, 'Month DD, YYYY'));

DBMS\_OUTPUT.PUT\_LINE('Last day of the month is: ' || TO\_CHAR(v\_last\_day, 'Month DD, YYYY'));

END;

/

-- Q1.4: add 45 days and calculate months between dates

DECLARE

my\_date DATE := SYSDATE;

v\_last\_day DATE;

new\_date DATE;

months\_diff NUMBER;

BEGIN

v\_last\_day := LAST\_DAY(my\_date);

new\_date := my\_date + 45;

months\_diff := MONTHS\_BETWEEN(new\_date, my\_date);

DBMS\_OUTPUT.PUT\_LINE('Today is: ' || TO\_CHAR(my\_date, 'Month DD, YYYY'));

DBMS\_OUTPUT.PUT\_LINE('Last day of the month is: ' || TO\_CHAR(v\_last\_day, 'Month DD, YYYY'));

DBMS\_OUTPUT.PUT\_LINE('Date after 45 days is: ' || TO\_CHAR(new\_date, 'Month DD, YYYY'));

DBMS\_OUTPUT.PUT\_LINE('Months difference is: ' || ROUND(months\_diff, 2));

END;

/

Q2:

CREATE TABLE countries (

country\_name VARCHAR2(50),

median\_age NUMBER(6, 2)

);

-- countries table

INSERT INTO countries (country\_name, median\_age) VALUES ('Japan', 48.4);

INSERT INTO countries (country\_name, median\_age) VALUES ('USA', 38.3);

INSERT INTO countries (country\_name, median\_age) VALUES ('Germany', 47.8);

INSERT INTO countries (country\_name, median\_age) VALUES ('India', 28.4);

INSERT INTO countries (country\_name, median\_age) VALUES ('Brazil', 33.5);

--evaluate variables using %TYPE and explicit cursor

DECLARE

CURSOR country\_cursor IS

SELECT country\_name, median\_age

FROM countries

WHERE country\_name = 'Japan';

v\_country\_name countries.country\_name%TYPE;

v\_median\_age countries.median\_age%TYPE;

BEGIN

OPEN country\_cursor;

FETCH country\_cursor INTO v\_country\_name, v\_median\_age;

IF country\_cursor%FOUND THEN

DBMS\_OUTPUT.PUT\_LINE('The median age in ' || v\_country\_name || ' is ' || v\_median\_age || '.');

ELSE

DBMS\_OUTPUT.PUT\_LINE('Country not found.');

END IF;

CLOSE country\_cursor;

END;