Q1.Write a PL/SQL code to print Today is fall on weekend or weekdays using if else statement.

DECLARE

v\_day VARCHAR2(10);

BEGIN

SELECT TO\_CHAR(SYSDATE, 'D') INTO v\_day FROM DUAL;

IF v\_day IN (1, 7) THEN

DBMS\_OUTPUT.PUT\_LINE('Today is a weekend.');

ELSE

DBMS\_OUTPUT.PUT\_LINE('Today is a weekday.');

END IF;

END;

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Q2.Write a PL/SQL code to check that an inputted a single character is vowel or not .If vowel then display which vowel it is.

DECLARE

v\_char CHAR(1);

BEGIN

-- Get user input

DBMS\_OUTPUT.PUT\_LINE('Enter a single character: ');

v\_char := UPPER(SUBSTR(TRIM('&1'), 1, 1));

IF v\_char IN ('A', 'E', 'I', 'O', 'U') THEN

DBMS\_OUTPUT.PUT\_LINE(v\_char || ' is a vowel.');

ELSE

DBMS\_OUTPUT.PUT\_LINE(v\_char || ' is not a vowel.');

END IF;

END;

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Q3.Write a PL/SQL code block to find out the sum of first twenty natural numbers (1+2+3+4+5+6+7+8+9+10+-----+20 this series).

DECLARE

v\_sum NUMBER := 0;

v\_counter NUMBER := 1;

BEGIN

WHILE v\_counter <= 20 LOOP

v\_sum := v\_sum + v\_counter;

v\_counter := v\_counter + 1;

END LOOP;

DBMS\_OUTPUT.PUT\_LINE('The sum of the first twenty natural numbers is: ' || v\_sum);

END;

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Q4.Write a PL/SQL block that will ask for two numbers and one operand (+, -, \*, /). Then it will calculate and display the result.

DECLARE

v\_num1 NUMBER;

v\_num2 NUMBER;

v\_operator CHAR(1);

v\_result NUMBER;

BEGIN

DBMS\_OUTPUT.PUT\_LINE('Enter the first number: ');

v\_num1 := TO\_NUMBER(TRIM('&1'));

DBMS\_OUTPUT.PUT\_LINE('Enter the second number: ');

v\_num2 := TO\_NUMBER(TRIM('&2'));

DBMS\_OUTPUT.PUT\_LINE('Enter the operand (+, -, \*, /): ');

v\_operator := UPPER(SUBSTR(TRIM('&3'), 1, 1));

CASE v\_operator

WHEN '+' THEN

v\_result := v\_num1 + v\_num2;

WHEN '-' THEN

v\_result := v\_num1 - v\_num2;

WHEN '\*' THEN

v\_result := v\_num1 \* v\_num2;

WHEN '/' THEN

IF v\_num2 = 0 THEN

DBMS\_OUTPUT.PUT\_LINE('Error: Division by zero.');

ELSE

v\_result := v\_num1 / v\_num2;

END IF;

ELSE

DBMS\_OUTPUT.PUT\_LINE('Error: Invalid operand.');

END CASE;

DBMS\_OUTPUT.PUT\_LINE('Result: ' || v\_result);

END;

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Q5.Write a PL/SQL code block to display a number in a reverse way.

DECLARE

v\_number NUMBER := 123;

v\_reverse\_number NUMBER := 0;

v\_digit NUMBER;

BEGIN

DBMS\_OUTPUT.PUT\_LINE('Original Number: ' || v\_number);

WHILE v\_number > 0 LOOP

v\_digit := v\_number MOD 10;

v\_reverse\_number := (v\_reverse\_number \* 10) + v\_digit;

v\_number := TRUNC(v\_number / 10);

END LOOP;

-- Display the reversed number

DBMS\_OUTPUT.PUT\_LINE('Reversed Number: ' || v\_reverse\_number);

END;

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Q6.Write a PL/SQL block to display the dates of this month which are Tuesday

DECLARE

v\_start\_date DATE := TRUNC(SYSDATE, 'MM');

v\_end\_date DATE := LAST\_DAY(SYSDATE);

v\_date\_iterator DATE := v\_start\_date;

BEGIN

DBMS\_OUTPUT.PUT\_LINE('Dates of the current month that are Tuesdays:');

WHILE v\_date\_iterator <= v\_end\_date LOOP

IF TO\_CHAR(v\_date\_iterator, 'DY') = 'TUE' THEN

DBMS\_OUTPUT.PUT\_LINE(TO\_CHAR(v\_date\_iterator, 'DD-MON-YYYY'));

END IF;

v\_date\_iterator := v\_date\_iterator + 1;

END LOOP;

END;

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Q7.Write a program in PL/SQL to print the prime numbers between 1 to50.

DECLARE

v\_number NUMBER := 2;

v\_is\_prime BOOLEAN;

BEGIN

DBMS\_OUTPUT.PUT\_LINE('Prime numbers between 1 and 50:');

WHILE v\_number <= 50 LOOP

v\_is\_prime := TRUE;

IF v\_number <= 1 THEN

v\_is\_prime := FALSE;

ELSE

FOR i IN 2..FLOOR(SQRT(v\_number)) LOOP

IF v\_number MOD i = 0 THEN

v\_is\_prime := FALSE;

EXIT;

END IF;

END LOOP;

END IF;

IF v\_is\_prime THEN

DBMS\_OUTPUT.PUT\_LINE(v\_number);

END IF;

v\_number := v\_number + 1;

END LOOP;

END;

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Q8.Write a program in PL/SQL to print the sum of digits of a number [eg: 635=14].

DECLARE

v\_number NUMBER := 635;

v\_temp NUMBER := v\_number;

v\_digit NUMBER;

v\_sum NUMBER := 0;

BEGIN

DBMS\_OUTPUT.PUT\_LINE('Number: ' || v\_number);

WHILE v\_temp > 0 LOOP

v\_digit := v\_temp MOD 10;

v\_sum := v\_sum + v\_digit; -- Add the digit to the sum

v\_temp := TRUNC(v\_temp / 10); -- Remove the last digit

END LOOP;

DBMS\_OUTPUT.PUT\_LINE('Sum of digits: ' || v\_sum);

END;

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