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DB2 9.7 SQL Procedure Developer

Version 3.5

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Topic 1, Volume A**QUESTION NO: 1**

A developer needs to create a user-defined function that will return a list of employees who work in a particular department. Which statement will successfully create a function that meets this objective?

A. CREATE FUNCTION dept_employees (deptno CHAR(3))

RETURNS TABLE

LANGUAGE SQL

READS SQL DATA

RETURN

SELECT empno, lastname AS l_name, firstnme AS f_name

FROM employee

WHERE employee.workdept = dept_employees.deptno

B. CREATE FUNCTION dept_employees (deptno CHAR(3))

RETURNS TABLE

DYNAMIC RESULT SETS 1

LANGUAGE SQL

READS SQL DATA

DECLARE emp_info CURSOR WITH RETURN FOR

SELECT empno, lastname AS l_name, firstnme AS f_name

FROM employee

WHERE employee.workdept = dept_employees.deptno

OPEN emp_info;

RETURN

C. CREATE FUNCTION dept_employees (deptno CHAR(3))

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```
RETURNS TABLE (empno CHAR(6),
l_name VARCHAR(15),
f_name VARCHAR(12))
LANGUAGE SQL
READS SQL DATA
RETURN
SELECT empno, lastname AS l_name, firstnme AS f_name
FROM employee
WHERE employee.workdept = dept_employees.deptno
D. CREATE FUNCTION dept_employees (deptno CHAR(3))
RETURNS TABLE (empno CHAR(6),
l_name VARCHAR(15),
f_name VARCHAR(12))
DYNAMIC RESULT SETS 1
LANGUAGE SQL
READS SQL DATA
DECLARE emp_info CURSOR WITH RETURN FOR
SELECT empno, lastname AS l_name, firstnme AS f_name
FROM employee
WHERE employee.workdept = dept_employees.deptno
OPEN emp_info;
RETURN
Answer: C
```

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QUESTION NO: 2

In the function shown below:

```
CREATE FUNCTION fcn1(deptno CHAR(3))
  RETURNS TABLE(empno CHAR(6),
                firstnme VARCHAR(12))
  READS SQL DATA
  RETURN
  SELECT empno, firstnme
  FROM employee
  WHERE employee.workdept = fcn1.deptno;
```

Which statement can be used to invoke the function above?

- A. SELECT * FROM TABLE(fcn1('B01'))
- B. SELECT TABLE(fcn1('B01')) FROM SYSIBM.SYSDUMMY1
- C. SELECT * FROM fcn1('B01')
- D. SELECT fcn1('B01') FROM SYSIBM.SYSDUMMY1

Answer: A

QUESTION NO: 3

Which statement correctly describes characteristics of external functions?

- A. External functions cannot return tables.
- B. All cursors opened within an external function should stay open until the database is quiesced.
- C. Scratchpads can be used to allocate dynamic memory required for multiple function invocations.
- D. Transactions can be terminated within external functions.

Answer: C

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QUESTION NO: 4

Click the Exhibit button.

EMPNO	FIRSTNME JOB	LASTNAME WORKDEPT
000010	CHRISTINE PRES	HAAS A00
000020	MICHAEL MANAGER	THOMPSON B01
000050	JOHN MANAGER	GEYER E01
000060	IRVING MANAGER	STERN D11
000070	EVA MANAGER	PULASKI D21
000090	EILEEN MANAGER	HENDERSON E11
000100	THEODORE MANAGER	SPENSER E21
000200	DAVID DESIGNER	BROWN D11
000210	WILLIAM DESIGNER	JONES D11
000220	JENNIFER DESIGNER	LUTZ D11
000230	JAMES CLERK	JEFFERSON D21
000240	SALVATORE CLERK	MARINO D21
000250	DANIEL CLERK	SMITH D21
000260	SYBIL CLERK	JOHNSON E21
000270	MARIA CLERK	PEREZ D21
000280	ETHEL OPERATOR	SCHNEIDER E11
000290	JOHN OPERATOR	PARKER E11
000320	RAMLAL FIELDREP	MEHTA E21
000330	WING	LEE
200170	KIYOSHI DESIGNER	YAMAMOTO D11
200220	REBA DESIGNER	JOHN D11
200240	ROBERT CLERK	MONTEVERDE D21
200330	HELENA FIELDREP	WONG E21
200340	ROY FIELDREP	ALONZO E21

UDF definition:

```
CREATE FUNCTION getnumbemployee(p_dept
VARCHAR(3))
  RETURNS TABLE (enum INT, empno VARCHAR(6),
                 lastname VARCHAR(15),
                 firstnme VARCHAR(12))
RETURN SELECT ROW_NUMBER() OVER (),
e.empno, e.lastname, e.firstnme
FROM employee e WHERE e.workdept = p_dept;
```

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Referring to the exhibit, how many rows will be returned by the SQL query shown below?

```
SELECT * FROM TABLE(getnumemployee(21?) AS d  
SELECT * FROM  
TABLE(getnumemployee(?21?) AS d
```

- A. 0
- B. 1
- C. 7
- D. 10

Answer: C

QUESTION NO: 5

Which three optional clauses can be used when creating an external function? (Choose three.)

- A. SCRATCHPAD
- B. NOTEPAD
- C. LANGUAGE
- D. EXTERNAL NAME
- E. DATABASEINFO

Answer: A,C,D

QUESTION NO: 6

Which statement is permitted within a scalar user-defined function body?

- A. COMMIT

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- B. INSERT
- C. SIGNAL
- D. LOOP

Answer: C

QUESTION NO: 7

Click the Exhibit button.

```
CREATE FUNCTION emp_birthdays (month INTEGER)
  RETURNS TABLE (l_name VARCHAR(15),
                 f_name VARCHAR(12),
                 month VARCHAR(20),
                 day INTEGER)
  LANGUAGE SQL
  READS SQL DATA
  NO EXTERNAL ACTION
  RETURN
  SELECT lastname, firstnme, MONTHNAME(birthdate),
         DAY(birthdate)
  FROM employee
  WHERE MONTH(employee.birthdate) =
  emp_birthdays.month
```

A user-defined function was created using the statement shown in the exhibit. Which additional option can be added to the CREATE FUNCTION statement to tell the optimizer that the function does not always return the same results for a given argument value?

- A. NO EXTERNAL ACTION
- B. NOT FENCED
- C. NOT DETERMINISTIC
- D. STATIC DISPATCH

Answer: C

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QUESTION NO: 8

Given the following SQL:

```
CREATE PROCEDURE test_proc()
BEGIN
  DECLARE c1 CURSOR FOR
    VALUES ('NAME1','NAME2','NAME3');
  OPEN c1;
END
```

Which statement is incorrect?

- A. The procedure declaration requires the DYNAMIC RESULT SETS 1 clause in order to return a result set.
- B. The cursor declaration requires the WITH RETURN TO CLIENT clause in order to return a result set.
- C. The cursor declaration requires the WITH RETURN TO CALLER clause in order to return a result set.
- D. The cursor declaration requires the WITH RETURN clause in order to return a result set.

Answer: A

QUESTION NO: 9

Given the following SQL:

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```
CREATE PROCEDURE test_proc()
BEGIN
  DECLARE i INTEGER DEFAULT 1;
  WHILE i < 10 DO
  BEGIN
    DECLARE cur CURSOR FOR
      VALUES ('NAME1','NAME2','NAME3');
    OPEN cur;
    SET index = index + 1;
  END;
  END WHILE;
END
```

Which of the following statements is true?

- A. The procedure declaration requires the DYNAMIC RESULT SETS 1 clause in order to return a result set.
- B. The cursor declaration requires WITH RETURN TO CLIENT clause in order to return a result set.
- C. The cursor declaration requires WITH RETURN TO CALLER clause in order to return a result set.
- D. The cursor declaration requires WITH RETURN clause in order to return a result set.

Answer: B

QUESTION NO: 10

In the stored procedure below:

```
CREATE PROCEDURE proc_labels (IN start_value INT, OUT p_ID INT)
s1: BEGIN
  DECLARE v_ID INT;
  s2: BEGIN
    DECLARE v_ID INT;
    SET v_ID = start_value;
    SET s1.v_ID = v_ID + s2.v_ID;
    SET v_ID = 3;
    SET p_ID = s2.v_ID;
  END;
END s1
```

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What will the value of the P_ID parameter be if the procedure is invoked and a value of 2 is specified for the START_VALUE parameter?

- A. 1
- B. 2
- C. 3
- D. 4

Answer: C

QUESTION NO: 11

Which procedure demonstrates the correct use of dynamic SQL?

A. CREATE PROCEDURE update_count1 (IN new_count INTEGER, IN item_code INTEGER)

BEGIN

DECLARE v_dynSQL VARCHAR(200);

SET v_dynSQL = 'UPDATE stock SET quantity_on_hand=? WHERE item_number=?';

PREPARE v_stmt1 FROM v_dynSQL;

EXECUTE v_stmt1 USING new_count, item_code;

END

B. CREATE PROCEDURE update_count2 (IN tab_name VARCHAR(128), IN new_count INTEGER, IN item_code INTEGER)

BEGIN

DECLARE v_dynSQL VARCHAR(200);

SET v_dynSQL = 'UPDATE ? SET quantity_on_hand=? WHERE item_number=?';