1. Assume the following is a piece of code in C++:

int x = 10;

int y = 20;

int\* ptr1 = & x;

int\* ptr2 = &y;

int z = \*ptr2;

here

What's the value of variable z at location 'here'?

**Answer: Value of z is 20**

2. Assume there is the following database in SWI-Prolog:

mother(melody, cathy).

mother(eleanor, melody).

father(michael, cathy).

father(jim, melody).

(1) What does the following query return?

?- mother(melody, X).

**Answer: X = cathy**

(2) Define relationship parent (X, Y) using predicates mother and father

% Knowledge bases

mother(melody, cathy).

mother(eleanor, melody).

father(michael, cathy).

father(jim, melody).

parent(michael,melody).

parent(jim,eleanor).

**Query: parent(X,Y)**

**Output:** X = michael,  
 Y = melody

X = jim,  
 Y = eleanor