Sample problems for practical examination of Artificial Intelligence

1. List processing:

Membership Checking	During this operation, we can verify whether a given element is member of specified list or not?
Length Calculation	With this operation, we can find the length of a list.
Concatenation	Concatenation is an operation which is used to join/add two lists.
Delete Items	This operation removes the specified element from a list.
Append Items	Append operation adds one list into another (as an item).
Insert Items	This operation inserts a given item into a
Sum of elements	Sum of all the elements of an integer list

Queries to be fired:
   a) Display the sum of all the elements of an integer list
   b) Find the length of a list etc.

2. Kinship domain
Predicates: parents, father, mother, brother, sibling, sister, cousin, uncle, aunt, ancestor, etc.
Queries to be fired:
   a) List the cousins of a particular person
   b) List Ancestors of a person etc.

3. Consider the following scenario:
The law says that it is a crime for an American to sell weapons to hostile nations. The country Nono, an enemy of America, has some missiles, and all of its missiles were sold to it by Colonel West, who is an American.
Queries to be fired:
   a) Is Colonel West a criminal?
   b) Who is the criminal? etc.

4. Go through the following scenario:
John likes all kind of food.
Apple, vegetable, mango, grape, peanuts and rice are food.
Anil eats burger, cheese, poha, oatmeal, barley and carrot.
Whatever Anil eats is a food.
Harry eats everything that Anil eats.
Queries to be fired:
   a) Does John like peanuts?
   b) List the names of foods.
   c) Does harry eat barley? etc.