## Question 1

A) Given are the polygon maps $A$ and $B$. Pencil in the result of the intersect overlay operator in C .

B) Given are the polygon maps A and D. Pencil in the result of the clip overlay operator of map $A$ by map $D$ in $E$


## Question 2

Below, raster and vector representations are compared.
Mark (with X) the correct answer in the table.

| Statement | True | False |
| :--- | :---: | :---: |
| An advantage of a raster representation is the simple data structure (compared to vector <br> representation). | X |  |
| Vector representations have an efficient representation of topology (compared to raster). | X |  |
| Attribute data can be more easily associated with raster representations than with vector <br> representations. |  | X |
| Vector representations can be associated with many attributes. | X | X |
| Raster representations have a more compact data structure than vector representations. |  |  |

## Question 3

The spatial relationships in the figures 3a-3d below are found in a geological layer. Each figure shows two area features (or geological units): one black and one striped. These features are exclusive: anything that is black cannot be striped, and vice versa. In each question, mark (with X) the answer that correctly indicates the topological relationship between these features.
a. The black feature...:

X is disjoint from the striped feature.
O meets the striped feature.
0 is equal to the striped feature.
O is inside the striped feature.
O is covered by the striped feature
O contains the striped feature.
O covers the striped feature.
O overlaps the striped feature.
b. The black feature...:

O is disjoint from the striped feature.
O meets the striped feature.
$O$ is equal to the striped feature.
$X$ is inside the striped feature.
O is covered by the striped feature
O contains the striped feature.
O covers the striped feature.
O overlaps the striped feature.
c. The black feature...:

O is disjoint from the striped feature.
O meets the striped feature.
$O$ is equal to the striped feature.
O is inside the striped feature.
O is covered by the striped feature
X contains the striped feature.
O covers the striped feature.
O overlaps the striped feature

