**1. Use the following Prolog program to answer the questions:** **[**5 Points**]**

|  |  |
| --- | --- |
| 1  2  3  4  5 | anonymous(L, N):- anon(L, 0, N).  anon([],N,N):-!.  anon([H|T], X,N):- X<H, anon(T,H,N).  anon([H|T], X,N):- X>H, anon(T,X,N). |

1. **What does prolog return for the query:** ?-anonymous(“yes”).

**Answer: ------------------------------------------------------------------------------------------------------------------------------------------------------------------------------**

1. **What does prolog return for the query:** ?-anonymous([1,0,1]).

**Answer: ------------------------------------------------------------------------------------------------------------------------------------------------------------------------------**

1. **What does prolog return for the query:** ?-anonymous(“eye”).

**Answer: ------------------------------------------------------------------------------------------------------------------------------------------------------------------------------**

**2. Write a prolog program: [**5 Points**]**

**To copy\_f(F,Fcopy) to copy a text file in F to another text file in Fcopy**.

**3. Answer the following question [**5 Points**]**

**Given that , Kilometer = Mile / 0.62137. Write a prolog program to accept a Kilometer distance and result the Mile distance and vice versa.**

Sample runs:

?- km\_mi(K, 3 ).

K= 4.828

**Note: Delete the following table if the student answer in a separate sheet**

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| --- |
| **Answer**  **------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------**  **------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------**  **------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------**  **------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------**  **------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------**  **------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------**  **-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------**  **-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------**  **------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------**  **------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------**  **------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------**  **-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------**  **------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------** |