# Question 1.1.1

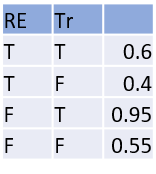
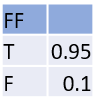
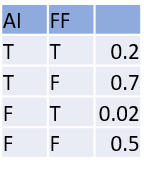
The prior probabilities for all the questions is as follows.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | never | rarely | sometimes | often | always | SUM |
| Tip 1 | STUDY | 0.021739 | 0.086957 | 0.130435 | 0.26087 | 0.5 | 1 |
| Tip 2 | REST | 0.352941 | 0.117647 | 0.352941 | 0.117647 | 0.058824 | 1 |
| Tip 3 | ALARM | 0.615385 | 0.051282 | 0.128205 | 0.102564 | 0.102564 | 1 |

It is not possible to compute the joint distribution as we do not have any data of how they occur together.

# Question 1.1.2

With the supplied variables, the following Bayesian Network was created, conditional probability tables are represented in the diagram:



## Assumptions made:

1. Artificial intelligence can help boost renewable energy by offering smart ways to load balance between durations of high/low production and high/low demand
2. AI and automation does have an impact on jobs lost
3. Low Fossil Fuel prices results in lower usage of renewable energy and vice versa
4. Low Fossil Fuel prices also means that people will travel more and not use public transport, resulting in more traffic
5. High traffic causes more global warming
6. Not using renewable energy also has an impact on global warming
7. Global warming results in climate change which results in unemployment in various sectors (especially farm related)