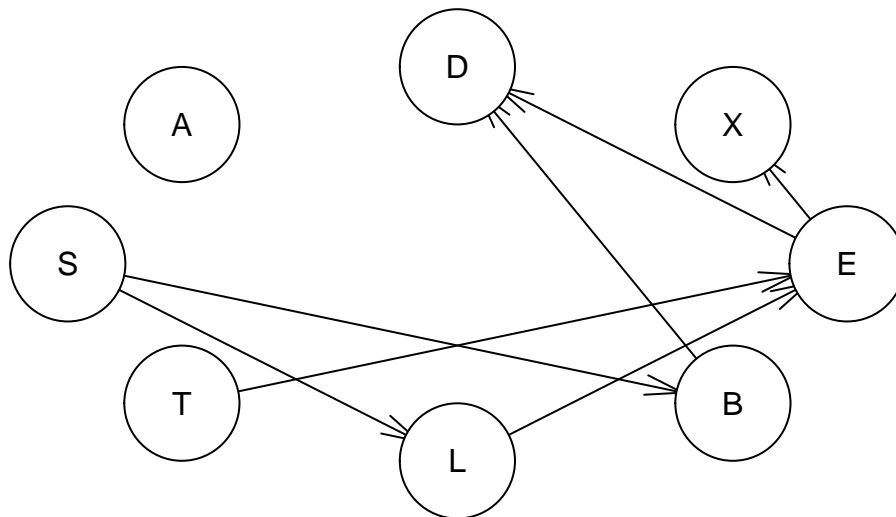


TDDE15 - Lab 1

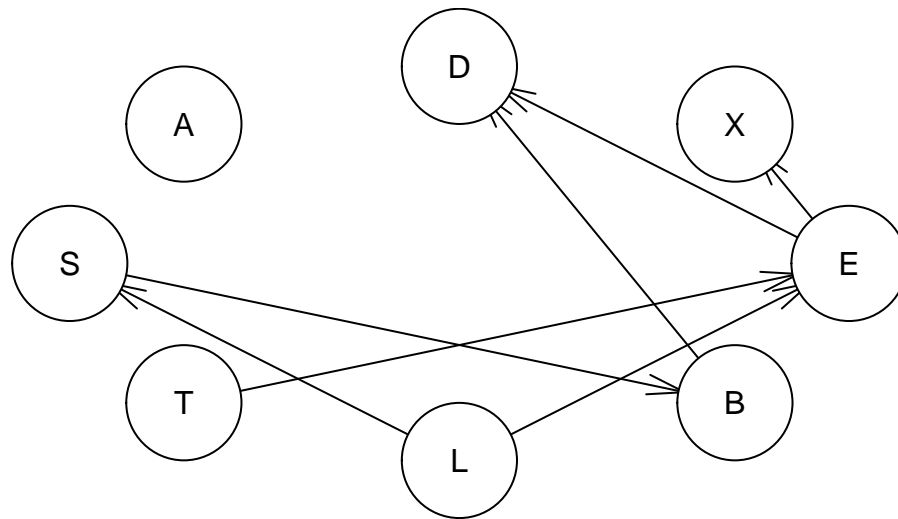
Question 1

```
library(bnlearn)
data("asia")
structure = hc(asia, restart = 3) #start = initial structure, restart = random restarts, score = score,

b=T
for (i in 1:10) {
  structure2 = hc(asia, restart = 1)
  b = all.equal(structure, structure2)
  if (b!=TRUE) {
    break
  }
}
plot(structure)
```



```
plot(structure2)
```



The hc return two different networks due to.....

Question 2

```
N = dim(asia)[1]
N
```

```
## [1] 5000
```

```
train = asia[1:floor(N*0.8),]
test = asia[(floor(N*0.8)+1):N,]

structure = hc(train, restart = 0)
plot(structure)
```

