**Bayesian Network**

Question 1)

1. Draw the Bayesian Network that corresponds to this conditional probability: P(A | B,C,E) P(B | D,E) P(C | F,H) P(D | G) P(E| G,H) P(F | H) P(G) P(H)

|  |  |
| --- | --- |
| P(FAIL) | 0.4 |

1. 



|  |  |
| --- | --- |
| P(PASS) | 0.4 |



|  |  |  |
| --- | --- | --- |
| P(D=PASS|OOP,ITC) | 0.2 | OOP=PASS, ITC=PASS  OOP=PASS, ITC=FAIL  OOP=FAIL, ITC=PASS  OOP=FAIL, ITC=FAIL |
| 0.8 |
| 0.3 |
| 0.95 |





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| --- | --- | --- |
| P(OS=FAIL|DS) | 0.7 | DS=PASS |
|  | 0.2 | DS=FAIL |

Calculate P(OS=PASS | ITC=PASS) using the network given above.