***Activity 1***

• A jet aircraft employs a system for monitoring the rpm, pressure and temperature values of its engines using sensors and operates as follows:

M sensor output=0 only when speed<4800 rpm

R sensor output =0 only when pressure <220 psi

T sensor output =0 only when temperature<220°F

***AIM:-***  Describe the logic circuit for condition that warning light should glow when the temperature is high AND pressure is high OR rpm is low

***Boolean expression:-***  W=T.(P+R’)

***Truth table:-***

|  |  |  |  |
| --- | --- | --- | --- |
| **T** | **P** | ***R*** | ***Warning Light*** |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 1 | 0 |
| 0 | 1 | 0 | 0 |
| 0 | 1 | 1 | 0 |
| 1 | 0 | 0 | 1 |
| 1 | 0 | 1 | 0 |
| 1 | 1 | 0 | 1 |
| 1 | 1 | 1 | 1 |