

RP/ IPRC TUMBA

ACADEMIC YEAR: 2019-2020

Dept: RE / LEVEL 3/ SEMESTER 2

MODULE TITLE: AUTOMATION AND CONTROL SYSTEM

MODULE CODE: REN302

Monday 18th May, 2020

ASSIGNMENT 3 /

2) There are three machines, each with its own start and stop buttons. Any two machines may run at one time (also, any one may run by itself). Develop a PLC Ladder diagram with appropriate interlocking system for this problem. **/10marks**

2) Write a ladder logic program using PLC programming software to implement the activities as described in the following problems:

A PLC is used to control the operations of an OPEN sign. If the switch S1 is closed the letters O, P, E, N come on with a 10s delay between each letter. When the entire word is illuminated it flashes OFF for 5s, then ON for 10s and OFF again. The sequence then restarts from O. write the program to execute this operation. The above sequence is to keep repeating until the PLC is placed in STOP mode by switch S1. **/10marks**

NB. To be submitted not later than: **June 23, 2020** before 11:59 PM

- Submission must go through : **RP-elearning platform**
- Copy and paste will not be tolerated
- If you need further clarifications please reach me to my email or Whatsap through:
jniytegeka@iprctumba.rp.ac.rw /+250788973044

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