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SUBJECT CODE NO:- 2170
FACULTY OF SCIENCE & TECHNOLOGY
B.Sc. T.Y (Sem-VI)
Examination March/April-2022 (To Be Held In June/July-2022)
Electronics Paper- XIX (601)
(A) (Programmable logic Controllers)

[Time: 1:53 Hours]

[Max.Marks:50]

Please check whether you have got the right question paper.

- N.B
- i) Attempt all questions
 - ii) Draw neat diagram wherever necessary
 - iii) use only Blue or Black pen.
- Q.1 Explain any three arithmetic instructions for PLC with help of neat ladder diagram. 20
- OR
- Explain with symbols any five types of switches and their subcategories used as input devices to PLC.
- Q.2 Explain with suitable diagrams the direct and indirect output devices used with programmable logic controller. 20
- OR
- Write short notes on any four of the following
- a) Industrial motor control circuit
 - b) Processor unit of a PLC
 - c) Rack assembly
 - d) Building a ladder diagram
 - e) Examine ON instruction
 - f) Steps in writing a programme for a PLC.
- Q.3 Attempt the following multiple choice question. 10
1. When _____ contacts are actuated they disrupt the power supply through them.
 - a) Normally open type
 - b) Normally closed type
 - c) Both a and b
 - d) None of the above
 2. The PLC is used in _____.
 - a) Machine tools
 - b) Automated assembly equipment
 - c) Moulding and extrusion machine
 - d) All of the above
 3. The first company to built PLC was _____.
 - a) General Motors
 - b) Modicon
 - c) Allen Bradley
 - d) Square D
 4. Which of the following is not the part of PLC scan?
 - a) Read inputs
 - b) Executive programme

- c) Reset all times
d) Update output
5. The area in a PLC where the falt can occure is _____
a) Programming
b) Output module
c) I/O field device failure
d) All of the above
6. Branching instructions are used to _____
a) Create a series circuit
b) Create a parallel circuit
c) Develop a logic and circuit
d) enables all of the above
7. PLC means _____ logic controller.
a) Peripheral
b) Periodic
c) Programmable
d) None of the above
8. An OR functions implemented in ladder logic uses _____.
a) Normally close contact in series
b) Normally open contact in series
c) Normally close contact in parallel
d) Normally open contact in parallel
9. Which of the following can be the output of PLC?
a) Motors
b) Solenoid
c) Indicators
d) All of the above
10. Each data file is capable of _____ storing _____ 16 bit words in its memory.
a) 4
b) 256
c) 16
d) 64