8	prom & explain the programmable logic controller program scan.
	1) PLC is a digital computer control system
-	adapted to control the robotic devices and
	other manufacturing processes.
	a) It involves a basic study of Microcontroller digital circuits & designing skills.  3) It provides easy flexible, high-reliability
	3) It provides easy flexible high-reliability
	programmable controllers suitable for simple
_	& house enviornments
71	4) It monitors the state of our input devices.
1	takes decisions & control the output devices
1,5	5) The applications include Robotics, water filli
127	tanks etc.
	6) PLC ranges from small devices with few
	input lowpuls to large deviced with
	thousand of input Powpuls.
_	7) The working of a programmable logic contract of can be easily understood as a cyclic
_	
	scanning method know as the scan cycle
4	Block Tomosicalians
	diagram Organizational Block

gladeaw	Organizational
die - p	- start eyding Time
	monitoring
	Read data from i/P
	user program working
	write data into opprodu
n e	other tayks.

A PIC Scan Process includes the following

Steps ?
i> The operating system flasts adding & monitoring

of time.

of time.

ii) The CPO stasts occoding the data from the ilp

module & checks the status of all the ilp.

module & checks the status of all the ilp.

module & checks the status of all the ilp.

program written in relay ladder logic or any

other PIC- programming language.

iv) Hext, the CPO performs all the internal

diagnosis and communication tosts.

v) According to the program results, it writes

the data into the olp module so that all

outputs are updated.

vi) This process continues as long as the PIC

is in run mode.

	List any four logical and arithmetic instructions				
a.9	in Pic.				
7	@ List of Arithmetic instructions:-				
	1) Addition: ADD  2) Substraction: SUB  3) Multiplication: MUL  4) Division: DIV  5) Return Fraction: MOD  6) Absolute: ABS				
				2 2 Gottower at transport	
					3) Addition: ADD
					ADD
					INO OUT
		1111			
	esoft the this				
	The thing stores				
	Adde the two values, INO with INI and stores				
	Adds the two values, INO with INI and stores				
	Adds the two values, INO with INI and stores the resulting value in the out.				
	the occulting value in the our				
	the resulting value in the out				
	the resulting value in the value of INI For				
	the resulting value in the value of INI For				
	the resulting value in the out  substracts the value of this form				
	the resulting value in the out.  2) Substraction: SUB  Substracts the value of INI Form  INO OUT IND and stores the resulting  Value in the OUT.				
	the resulting value in the out  2) substraction: 80B  Substracts the value of INI for  Tho and stores the resulting				
	the resulting value in the out.  2) Substraction: SUB  Substracts the value of INI Form  INO OUT IND and stores the resulting  Value in the OUT.				
	the resulting value in the value of the formula of the resulting and chores the resulting value in the out.				
	the resulting value in the source of the resulting substracts the value of the resulting the source of the resulting value in the out.				
	the resulting value in the out  Substraction: SUB  Substraction: SUB  IND and stores the resulting  IND out IND and the out.				
	the resulting value in the out  Substraction: SUB  Substracts the value of INI for INO OUT INO and stores the resulting Value in the out.  While in the out.				
	The resulting value in the out  Substraction: 80B  Substracts the value of INI for INO OUT INO and stores the resulting Value in the OUT.  While in the few values, ING  MUL Multiplies the two values, ING  MUL Multiplies the two values, ING  MUL Multiplies the two values, ING  MUL Multiplies the resulting				
	The resulting value in the out  Substraction: 80B  Substracts the value of INI for INO OUT INO and stores the resulting Value in the OUT.  While in the few values, INC  MUL Multiplies the two values, INC  MUL Multiplies the two values, INC  MUL Multiplies the two values, INC  MUL Multiplies the resulting				
	the resulting value in the out  Substraction: 80B  Substracts the value of INI Form  INO OUT INO and stores the resulting  Value in the out.  Which is the two values, INC  Which is the t				

4> Division	: DIN
DJ V INO OUT	Divides the value of INI for
141	Nature in the out:
or Floating	nd output values must be integer point value in ADD, SUB, MUL
DIV instaud	
C LIGH OF 10	gical instructions 8-

	"mechatronics is a synergy of several engineering disciplines" - explain with example combination of
	Thomas of Several
	substantics is a suith example
0-11	disciplines" - explain with every  disciplines" - explain with every  1> mechatronics is a synergistic combination of  precision engineering electronic control and  precision engineering electronic control and  mechanic systems that exist at the interface
	disciplines
	- 1- point is a syne of alachathic control did
	Mecharison andioeering
	precision encloses
	mechanic systemate, that exist
	precision engineering, electronic special engineering electronic special electronic elec
Ī	
-	- electronics
	- informatics
-	- automation
1	- sobotics. I homography developing
ļ	The most agnowned
	3) It is one of the science. The cook
	fields of teamining
	hasian & electronics +
į	mechalornics = mechanics + electronics +
i	
1	4) Look at any systems which are around us, may
1	al austems which are around as,
	4) Look at any systems containe at home to industria
	be reader and that
	the foom a washing made no more systems that one engineered with a single discipline knowledges
	are connected with a single discipline knowledge
	Que englise
	skills.
	skills.  5) Fundamentally everything around by is computer
Ī	controlled through a complex integration of
1	controlled through a complex integration of mechanical, electrical of electronic sub-system
	to tou the second of on
	6) Mechatronics provides an apportunity not on
1	h manipular of machinal but also it charge
	the mindset & the approach to technological issued mast impossibly teaching one of technological issued as most impossibly teaching one of technological issued as
	I have doller tombine more technology to was
i	a) in work imboatuild teaching assess secondles of
Ī	of acquiring knowledge of skills.
	acquiring ciosicals a size.