

11 DEC 2019

Seat No: _____

P.G.D.C.A Semester-1 Examination
Logical Organization of Computer Paper No.103
Subject Code: 9626

Time: 3 Hours**Total Marks: 100**

Q-1 [a]	Convert the following	15
	(1) $(1010101010)_2 = ()_{10}$	
	(2) $(BCD)_{16} = ()_{10}$	
	(3) $(79A)_{16} = ()_2$	
	(4) $(396)_{10} = ()_8$	
	(5) $(235)_8 = ()_{10}$	
Q-1 [b]	Explain floating point representation.	5
	OR	
Q-1 [a]	Convert the following.	15
	$(B2F)_{16} = ()_{10}$	
	$(217.8125)_{10} = ()_2$	
	2's complement of $(11001)_2$	
	$(259.8125)_{10} = ()_{16}$	
	$(6471)_{10} = ()_8$	
Q-1 [b]	Explain block diagram of computer.	5
Q-2 [a]	Write a short note on printer.	10
Q-2 [b]	write a short note on	10
	(i) Fetch decode cycle	
	(ii) Input Device	
	OR	
Q-2 [a]	(1) Explain Instruction execution in detail.	10
	(2) Write a short note on main memory.	
Q-2 [b]	write a short note on	10
	(i) Parallel Instruction Execution.	
	(ii) Interrupt controller.	
Q-3 [a]	State and prove D-morgan's theorem	10
Q-3 [b]	Explain basic and universal gate with circuit and truth table.	10
	OR	
Q-3 [a]	Explain SOP in detail.	10
Q-3 [b]	Preparing truth table using circuit $F1 = X+Y'+Z'$	10
Q-4 [a]	Explain 3 – 8 line encoders.	10
Q-4 [b]	Explain full adder with circuit.	10
	OR	
Q-4 [a]	Explain multiplexer in detail.	10
Q-4 [b]	Explain word comparator in detail.	10
Q-5 [a]	Write a short note on register.	10
Q-5 [b]	Explain Up down counter in detail.	10
	OR	
Q-5 [a]	Explain D flip flop in detail.	10
Q-5 [b]	Explain R – S latch in detail.	10
