Q1. (20 Marks)	Choose the correct option for following questions. All the Questions are compulsory and carry equal marks (02 marks each)
1.	The Access Bank of PIC18 consists of _____ and _____ Registers.
Option A:	General Purpose & Bank select
Option B:	General Purpose & File Select
Option C:	General Purpose & Working
Option D:	General Purpose & Special Function
2.	RLCF F, d, a For the given instruction syntax, which STATUS flag/s will get affected
Option A:	Z
Option B:	Z, N
Option C:	Z, N, C
Option D:	N
3.	PIC18 microcontroller has _____ size of address bus and _____ size of data bus to access Data RAM.
Option A:	8 bit, 8 bit
Option B:	12 bit, 8 bit
Option C:	16 bit, 8 bit
Option D:	21 bit, 16 bit
4.	MOVLW 00xH, MOVWF TRISC What will happen after execution of above instructions?
Option A:	Port C will act as Input Port
Option B:	Port C will act as Output Port.
Option C:	Port C will Load WREG register with 00H value
Option D:	WREG register will get loaded with the content in PORTC register.
5.	To access the program code from program memory, _____ pointer is used and to access the data from program memory, _____ pointer is used.
Option A:	Program Counter, Table Pointer
Option B:	Program Counter, File Select Register
Option C:	Table Pointer, File Select Register
Option D:	Table Pointer, Program counter
6.	The Analog to Digital converter of Pic18F is a _____ bit converter.
Option A:	4
Option B:	8
Option C:	10
Option D:	12
7.	To write the Command Word to Command Register of LCD, select the appropriate status to be maintained at RS and RW pin respectively.
Option A:	RS =0, RW = 0
Option B:	RS =0, RW = 1
Option C:	RS =1, RW = 0

Option D:	RS =1, RW = 1
8.	Write an instruction to Start the analog to digital conversion in ADC module of Pic18 microcontroller.
Option A:	ADCON0bits.ADON=0;
Option B:	ADCON0bits.ADON=1;
Option C:	ADCON0bits.GO=0;
Option D:	ADCON0bits.GO=1;
9.	If the SPBRG register of serial communication is loaded with 03H and the clock frequency (Fosc) is 10MHz. Select the most appropriate Baud are set by serial communication module.
Option A:	2400
Option B:	9600
Option C:	19200
Option D:	38400
10.	In PWM mode of CCP module, the associated CCP pin is set as _____.
Option A:	Input pin
Option B:	Output pin
Option C:	Clock input pin for timer
Option D:	Interrupt pin

Q2 (20 Marks)	Solve any Four out of Six questions (05 marks each)
A.	Explain the Status register used in Pic18 microcontroller and also explain its significance.
B	Write the differences between microprocessor and microcontroller.
C	Describe the Access Bank concept used in Pic18 microcontroller.
D	Explain the structure of Timer0 control register (T0CON) used in Timer0.
E	Explain the GIE and PEIE bits with reference to interrupt.
F	Explain stack and subroutine. Explain any one instruction associated with that.

Q3 (20 Marks)	Solve any Two Questions out of Three (10 marks each)
A	What is mean by addressing mode? Explain the different addressing modes used in pic18 microcontroller.
B	Describe the various special function registers used in USART module used in Pic18 microcontroller for serial communication.
C	Draw the block diagram of ADC module used in Pic18 microcontroller and hence explain the control registers associated with the same.

Q4 (20 Marks)	Solve any Two Questions out of Three (10 marks each)
A	Write a C program for Timer0 to generate a square wave of 100 Hz frequency at RB7 pin. Assume the oscillatory frequency (Fosc) as 10 MHz. Operate Timer0 in 16 bit mode with a prescaler of 128.
B	Describe the Compare, Capture and PWM (CCP) module of Pic18 microcontroller.
C	Write a short note on Stepper motor interfacing with Pic18 microcontroller.