JE/JZ

Jump if equal (means two operands are equal that is ZF = 1 SET) & Jump if Zero (difference = Operand 1- Operand 2 = ZERO that is ZF = 1 SET) both are two different names for the same conditional jump. Thus JE/JZ are the same.

JNE/JNZ

Jump Not Equal / Not Zero are exactly same, this jump will occur if ZF = 0 that is if Zero Flag is Clear or Reset, then JNE/JNZ will be true and jump will be taken.

JP/JPE

Jump if Parity / Even Parity, both are exactly same, as we are looking at Parity Flag which is ONE in case of Even Parity. Hence Jump will be taken when we have Parity or Even Parity -Parity means we have Even Parity that is exactly same when we say we have Parity, in all cases PF = 1

JNP/JPO

Jump if NO Parity / Odd Parity, both are exactly same, as we are looking at Parity Flag which is ZERO in case of Odd Parity. Hence Jump will be taken when we have Odd Parity or Don't have Even Parity- No Parity means we don't have even Parity that is exactly same when we say we have Odd Parity, in all cases PF = 0

JA/JNBE

are exactly same, that is Jump if above or Jump if Not Below or Equal, whatever we say, we meant the same. In both jumps, CF and ZF are tested and must be = 0 for jump to be taken that is CF = ZF = 0

JAE/JNB

are exactly same, that is Jump if Above or Equal or Jump if Not Below, whatever we say, we meant the same. In both jumps, CF is tested and must be = 0 for jump to be taken that is CF = 0

JB/JNAE/JC

are exactly same, that is Jump if Below / Not Above or Equal / Carry, whatever we say, we meant the same. In all of above 3 jumps, CF is tested and must be = 1 for jump to be taken that is CF = 1 because when Carry is out, CF = 1

JBE/JNA

are exactly same, that is Jump if Below or Equal / Not Above, whatever we say, we meant the same. In both jumps, CF or ZF are tested and either must be = 1 for jump to be taken that is CF or ZF = 1 because once destination operand is less than the source operand, we will take borrow that is why CF = 1 or When both are equal even then ZF = 1.

Rest of Conditional Jumps will be discussed in detail in Next Lecture In Sha’ ALLAH!