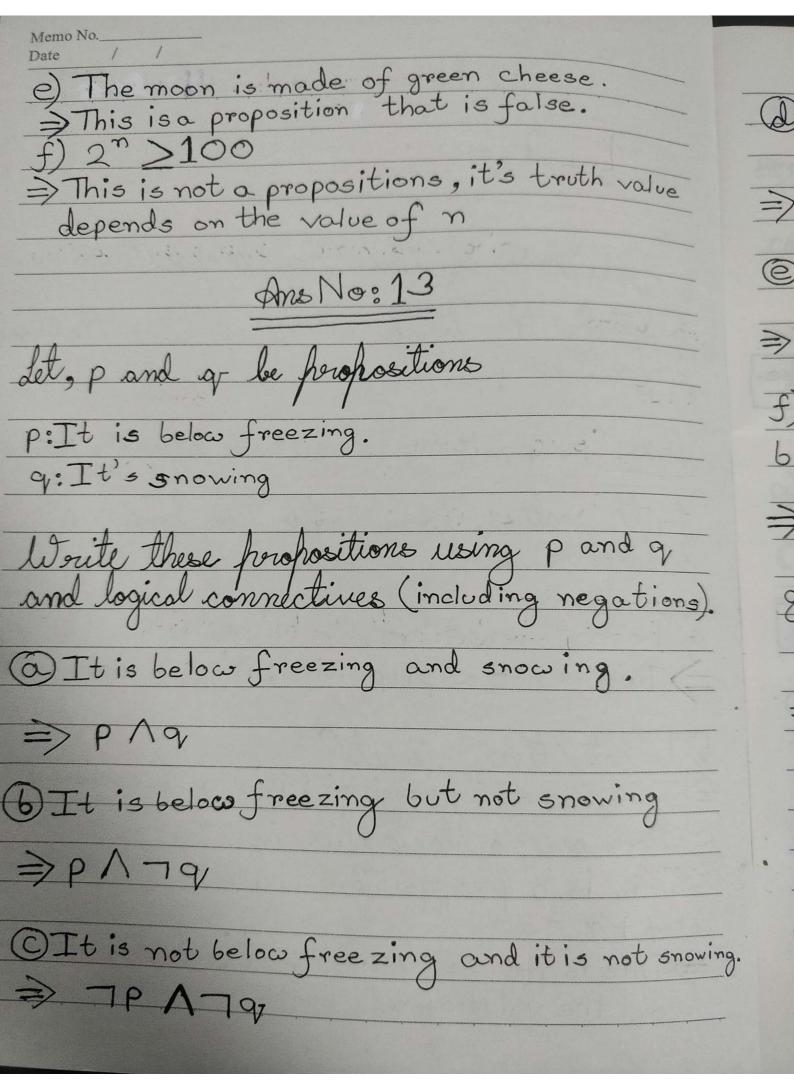
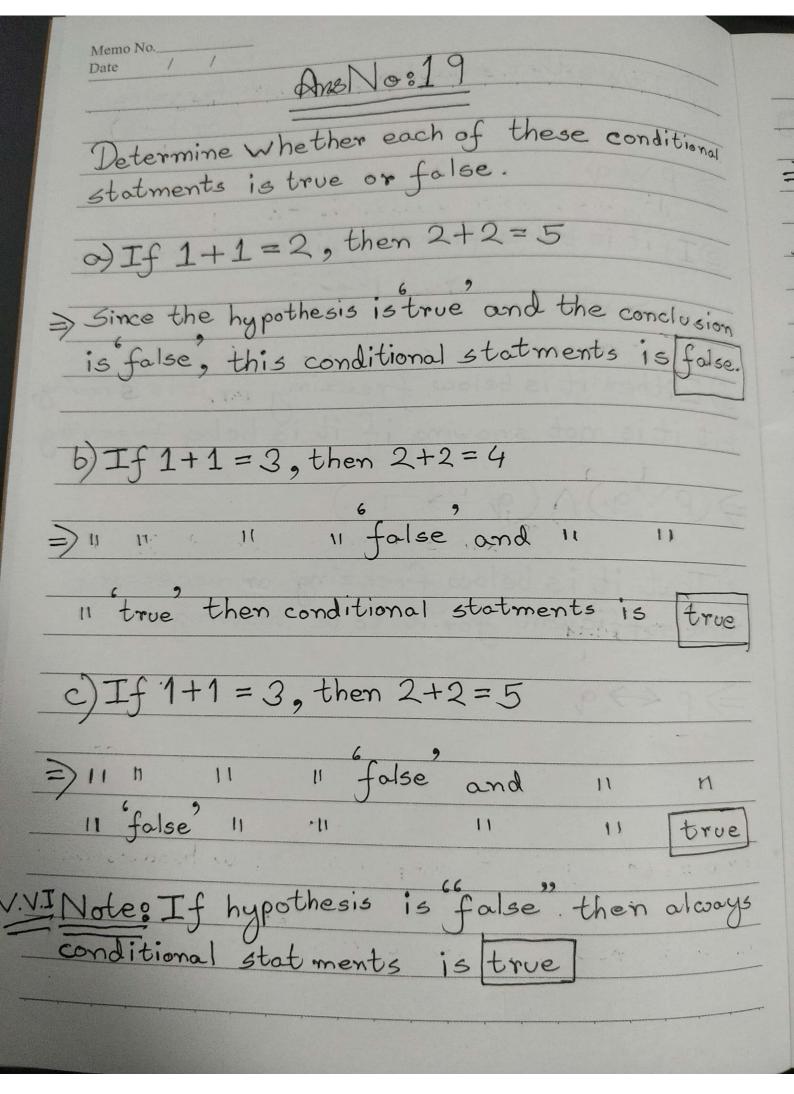
ABID #2019380141  ALI Memo No Date //
[1.1] Propositional Logic
2) Which of these are propositions? What are the touth values of those that are
What are the touth values of those that are propositions?  Ans: Propositions must have clearly defined
touth values, so a proposition must be a declarative sentence with no free variables.
a) Do not pass go.  This is not a proposition; it's a command.
b) What time is it?  This is not a proposition; it's a question.  There are no black blies in Maine.  This is a proposition that is false  d) 4+x=5
=> This is not a proposition; it's truth value depends on the value of x



DIt's either snowing or belo	Memo No. Date // oco-freezing  (or both)
=> PV9 then	nd references as a
©Ifit is below freezing, it is  ⇒ ρ→Υ	s also snowing.
f) Either it is below freezing but it is not snowing if it is	or it is snowing, belog freezing.
$\Rightarrow (P \vee q) \wedge (p \rightarrow \neg q)$	
g) That it is below freezing and sufficient for it to be sor	nowing.
The same of the sa	
Total and the second of the second of	
	Estace Billion Co.



DIf monkeys can fly, then 1+1=3 = Since, the hypothesis is false, the conditional statement is true Ans No:29 State the converse, contrapositive and inverse of each of these conditional statements. a) If it snows today, I will ski tomorrow. Converse: "I will ski tomorrow only if it snows today." Contrapositive: 66 If I do not ski tomorrow, then it will not have snowed today." Inverse: 66 If it does not snow today, then I will not ski tomorrow?

Memo No.  Date    Date
to be a quiz.
Converse: 66 If I come to class, then there
will be a quiz."
Contrapositive: If I do not come to class, then
there will be a quiz."
Inverse: 66 If there is not going to be a quiz, then I don't come to class.
c) A positive integer is a prime only if it has no divisors other than I and itself.
Converse: "A positive integer is a prime if it has
no divisors other than I and itself?  Constrapositive of Transitive int
Constrapositive: 66 If a positive integer has a divisor other than 1 and itself, then it is not prime."  Inverse: 66 If a positive integer is not prime, then it has a divisor the divisor then it has a divisor then it has a divisor then it has a divisor the divisor the divisor then it has a divisor the divisor then it has a divisor the
it has a divisor other than I and it self."