Q. no.	DSGT Tutorial 1 : Question
1.	Determine Whether each of the following sentences are statements (or propositions) or not?
a)	In 1990 George bush was the president of the united states
b)	X+3 is a positive integer
c)	If only every morning could be as sunny and clear as this one!
d)	Fifteen is an even number
e)	If Jennifer is late for the party , then her cousin Zachary will be quite angry.
f)	What time is it?
g)	From the halls of Momente zuma to shores of tripoli
h)	As of june 30, 1986, Christine Marie Evrert had won the French open seven times.
2.	Let p and q be the propositions p: It is below freezing. q: It is snowing. Write these propositions using p and q and logical connectives (including negations). a) It is below freezing and snowing. b) It is below freezing but not snowing. c) It is not below freezing and it is not snowing. d) It is either snowing or below freezing (or both). e) If it is below freezing, it is also snowing. f) Either it is below freezing or it is snowing, but it is not snowing if it is below freezing. g) That it is below freezing is necessary and sufficient for it to be snowing.
3.	Let p, q, and r be the propositions p: You have the flu. q: You miss the final examination. r: You pass the course. Express each of these propositions as an English sentence. a) $p \rightarrow q$ b) $\neg q \leftrightarrow r$ c) $q \rightarrow \neg r$ d) $p \vee q \vee r$ e) $(p \rightarrow \neg r) \vee (q \rightarrow \neg r)$ f) f) $(p \wedge q) \vee (\neg q \wedge r)$
4.	Suppose I tell Seema that if she gets a 93% on her final, then she will get an A in the class. Assuming that what I said is true, what can you conclude in the following cases: 1. She gets a 93% on her final. 2. She gets an A in the class. 3. She does not get a 93% on her final. 4. She does not get an A in the class.