Translate the following statements in a propositional logic using sentence letters in the logical symbols (P, Q, R, S... ~, V, &,  $\rightarrow$ ,  $\leftrightarrow$ )

- 1. If Carly agrees to do the job, then it will be done right. (C: Carly; D: done)
- 2. If you pay for it, you can have it. (P : pay; H: have)
- 3. Since I went to the store, I will not run out of toothpaste. (S: store; T: toothpaste)
- 4. Should the ice melt, then the drink will be diluted. (I: ice; D: drink)
- 5. If it is not true that Titanic is the highest grossing movie of all time, then it must be Avatar. (T: Titanic; A: Avatar)
- 6. If you drink a lot of coffee or smoke tobacco, then your teeth are likely stained. (C: coffee; T: tobacco; S: stained)
- 7. You can go out if, and only if, you clean your room. (O: out; C: clean)
- 8. Eating right is necessary for staying healthy. (E: eat; H: Healthy)
- 9. She will pass the course provided she does the exercises. (P: pass; E: exercises)
- 10. You can get into the bar only if you are 21 or older. (B: bar; O: older than 21)
- 11. Nadia relaxes if and only if all her work is done. (R: relax; W: work)
- 12. Catching the ball is sufficient for making the last out. (C: catch; O: out)
- 13. When you find someone that loves you, you should hold on to them. (L: love; H: hold)
- 14. You will graduate only if you work hard. (G: graduate; W: work)
- 15. Cleaning your room is necessary and sufficient for going out. (C: Clean; O: out)
- 16. Taking the LSAT is necessary for getting into law school. (T: LSAT; L: law school)
- 17. I will go to Columbia, unless I get into Harvard. (C: Columbia; H: Harvard)
- 18. You will not get in trouble if and only if your parents dont find out. (T: trouble; F: find out)
- 19. According to the NFL, making a football move is necessary to make a catch. (C: catch; F: football move)
- 20. If you eat your dinner, then if there's cake in the house, you can eat dessert. (E: eat dinner; C: cake; D: dessert)