

Foundation of Computer Science (CS60001)

Tutorial-08

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Encode the following argument indicating what each proposition/predicate stands for and then show by resolution that it is valid or not

1. Every athlete is strong. Everyone who is strong and intelligent will succeed in his career. Peter is an athlete. Peter is intelligent. Therefore, Peter will succeed in his career.
2. (i) All are both officers and gentlemen, (ii) All officers are fighters, (iii) Only a pacifist is a gentleman or not a fighter. (iv) No pacifist is a gentleman if he is a fighter. (v) Some are fighters iff they are officers. Therefore, not all are fighters. Show the validity of the above argument.
3. (i) No man who is a candidate will be defeated if he is a good campaigner. (ii) Any man who runs for office is a candidate, (iii) Any candidate who is not defeated will be elected. (iv) Every man who is elected is a good campaigner. Therefore, (v) any man who runs for office will be elected if and only if he is a good campaigner.