MANAV RACHNA UNIVERSITY

Department of CST

(Artificial Intelligence – CSH205B-T & P)

**Tutorial 8**

**Learning Outcome**: Techniques of representing knowledge - Resolution, Frames and inheritance, constraint propagation

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| Course Outcome | Bloom’s Taxonomy | Program Outcome |
| CO3 | BT1, BT2, BT3 | PO1, PO3, PO10 |

1. Convert the following statements to First Order Predicate Logic formulae:

1. Students pay fees.

2. For every natural number, there is a natural number larger than it.

1. American vegetarians do not take pulses but Indian vegetarians do.
2. All blocks on top of blocks that have been moved or are attached to blocks that have been moved have also been moved.
3. Convert the following well-formed formulae (wffs) to clause form:
4. {~{(∀x) P(x)}} → (∃x)[~P(x)]
5. (∀x)(∃y){[P(x,y) → Q(y,x)] ∧ [Q(y,x) → S(x,y)]}→ (∃x)( ∀y)[P(x,y) → S(x,y)]