Assignment – II (Open Notebook)

Artificial Intelligence

YEAR / SEM: BE/VII   DATE:07/10/2019

BRANCH:IT   Deadline : 12/10/2019

Q.1 . Prove that Ravi likes peanuts from given statements

    1. Ravi likes all kind of food.

    2. Apple and chicken are food.

    3. Anything anyone eats and is not killed is food.

    4. Ajay eats peanuts and still alive.

    5.Rita eats that Ajay eats.

Q.2. Consider following statements

    1. If Unicorn is mythical, then it is immortal, but if it is not mythical then it is mortal and mammal.

    2. If the unicorn is either immortal or a mammal, then it is horned.

    3. The unicorn is magical if it is horned.

    Can we prove that the unicorn is mythical? Magical? Horned?

Q.3. Convert following statements into FOL

    1. Not all students take history and biology.

    2. Only one student failed in history.

    3. Only one student failed both in history and biology.

    4. The best score in history is the best score in biology.

    5. Everyone who loves all animals is loved by someone.
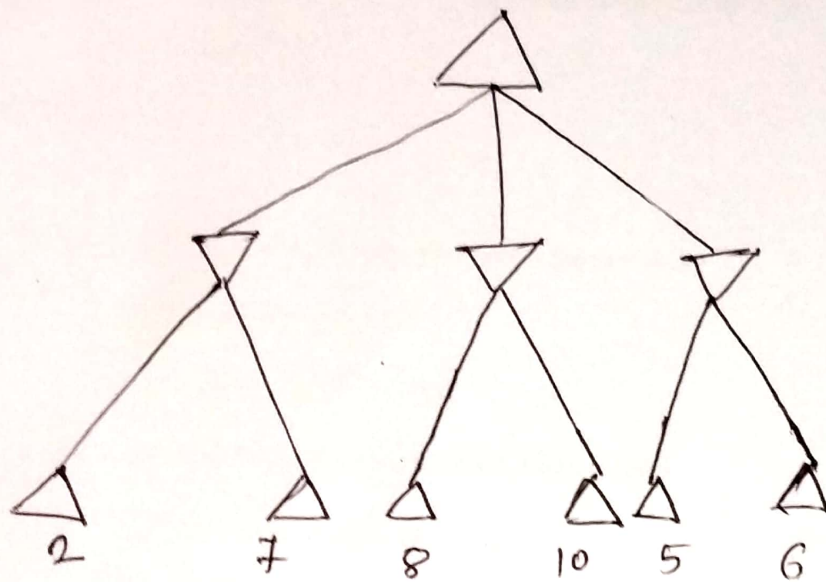
Q.4. Apply Crypt Arithmetic for following

    1. LETS + WAVE = LATER

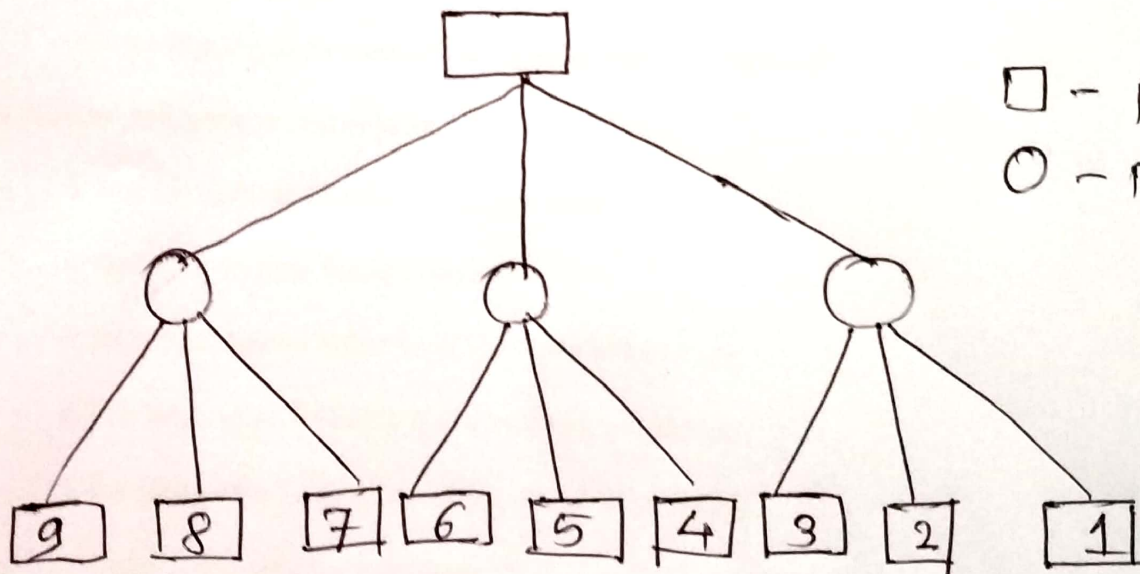   2. BASE + BALL = GAMES

Q. 5. Explain WUMPUS World Environment.

Q.6. Give the difference between STRIPS and ADL.

Q.7. Apply Alpha Beta pruning to following tree

A – max node
∇ – min node.

Q.8 Consider a given game tree and apply alpha- beta pruning

□ – max node
O – min node.

9 8 7 6 5 4 3 2 1

Q.9. Explain partial order planning with example.

Q.10. Explain Bayes Theorem with example.

Q.11. Explain Expert System Shell in short.