



Instructions:

- Use the space provided to write your answers.
- Ask in case of doubt.

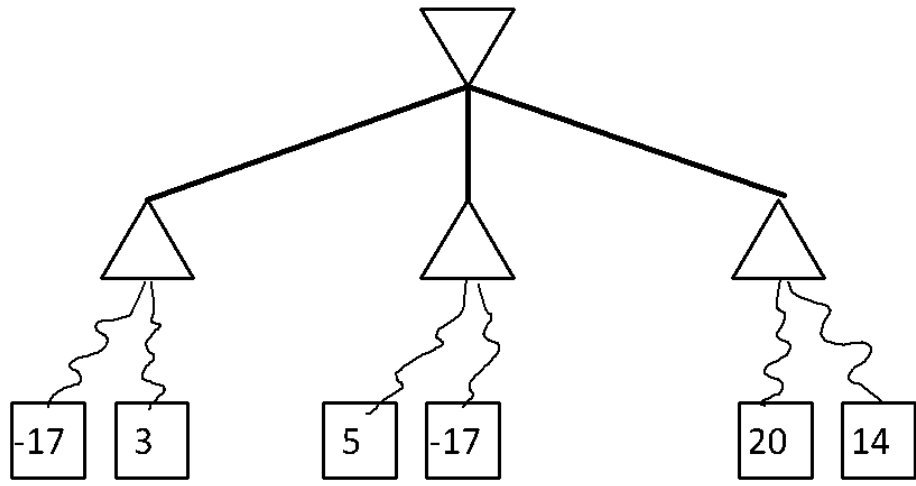
ANSWER THE FOLLOWING QUESTIONS:

1. Fill in the spaces [5 marks] [A_q,C_a]
- Genetic Algorithms (GA) use principles of natural evolution. There are five important features of GA
 - Culling is a technique that
 - OR gate in a deterministic environment, the only branching is introduced by in each state.
 - In genetic algorithm, The player whose turn it is to move in state s is called
 - Monte Carlo method is preferred than Alph-beta methods in the games.

Solution:

- Initial Population, Fitness Function, Selection, Crossover, Mutation.
- discard individuals below a given threshold
- agents own choices
- TO-MOVE(s).
- high branching factor.

2. Consider the graph shown below, expand Monte Carlo search tree to the first node in the third level. clearly show your answer if the random simulation results are shown below each node from left to right. [5 marks] [D_c]



Solution:

