1. **why alpha beta fast->**
   = onk node prune kore tai prune kora gulo visit kora lagena tai

2. **Mutually exclusive events** are things that can't happen at the same time

3. **Sure event->**
   = jeta hobei

4. **Min max r alpha beta er majhe fast konta?->**
   = alpha beta fast

5. **The 7 Steps of Machine Learning**
   =1 - Data Collection. 2 - Data Preparation. 3 - Choose a Model. 4 - Train the Model. 5 - Evaluate the Model. 6 - Parameter Tuning. 7 - Make Predictions.

6. **Min max r alpha beta er majhe fstvkonta (efficient) ?**
   =Alpha beta because alpha beta ordhek node read kore chatai kore day tai time kome jay.

7. **Minmax algo solve kore kamne?**
   =The Minimax algorithm helps find the best move, by working backwards from the end of the game. At each step it assumes that player A is trying to **maximize** the chances of A winning, while on the next turn player B is trying to **minimize** the chances of A winning

8. **Alpha beta and Minmax difference.**
   = i) Alpha beta fast

9. **Constraint graph ki? And kaj ki?**
   = A constraint graph is a special case of factor graph, which allows for the existence of free variable.
   Kaj = Contraint graph and hypergraphs are used to represent relations among in a constraint satisfaction problem.

10. **Constraints mane ki?**
    =Constraint mane setting some rules to do the tasks.
    Definition of constraints: Set of rules

11. **Graph definition**
    = A set of nodes connected by edges
12. **Mutually exclusive bolte ki bojhay? Example**

= related in such a way that each thing makes the other thing impossible : not able to be true at the same time or to exist together War and peace are mutually exclusive.

Example: things that can't happen at the same time. Ex: pass fail, head tail

13. **Minmax ar value ki thake initially?**

= Alpha -Infinity, Beta +infinity.

14. **Explain Bayes theorem :**

=video

15. **Backtracking ar improvement:**

= Je node ar karone kono point ashse, oi node direct back kore. Ar jonno aita ke intelligent backtracking o bola hoy.

16. **Impossible event ar possibility koto?**

=0 because eta kono situation a kaj korena.

17. **Mutation and Crossover konta random?**

=mutation maybe

18. **Python a test tranning ar akta function ase tar nam ki?**
19. =Test tranning split.

20. **Mutually Exclusive ki?**

= দুইটা আলাদা আলাদা ইভেন্ট যেটা একটা ঘটভল আভেকটা ঘভটনা .

21. **Degree heurioustic ki?**

=choose the variable with the most constraints on remaining variables

22. **মিমি যাক্স আর আলফা মিটার ররজাল্ট মি রেহি মি া ?**

=Same But half node examine kore baki prune kore dey alpha beta.

23. **Backtracking search k improve korar j Kichu steps ache oitar moddhe tie breaker Konta k bole?**

= Degree heuristic

24. **Mutation, crossover and selection a konta random and konta random na ?** = Mutation , crossover random and selection none random.

25. **Bayes theorem:**

=Relationship between 2 opposite conditional.

26. **Bayes theorem kisher sathe related?**
    = Related to degree of belief

    26**. Alpha beta pruning r minmax er moddhe faster konta and kno?**
    = Alpha beta because onk node prune kore . prune kora gula visit kora lagena tai

27. **tie breaker?**
    =heuristic diye kaj stop kora subidhar jonno

28. **Definition of mutation?**
    =error in copy of information(which end up making new features)

29. **Which have to be satisfied to solve a particular problems ? =**

30. **Constraint kivabe kaj kore ?**
    =

31. **Varities of constraints:**
    = Unary and binary highorder

32. **Sathe degree heuristic vs minimum heuristic etar difference**
    = Degree heuristic: **assign a value to the variable that** is involved in the largest number of constraints on other unassigned variables
    .Minimum remaining values (MRV): choose the variable with the fewest possible values.

33. **genetic algorithm :**
    = The genetic algorithm is **a method for solving both constrained and unconstrained optimization problems** that is based on natural selection, the process that drives biological evolution. The genetic algorithm repeatedly modifies a population of individual solutions.

34. **survival of the fittest:je fit take choose kora (jeta valo solution dey oi way choose kore agano)**
35. **alpha beta pruning improve**
    =1) Reduce depth of search.
    2) Weed out redundant moves from the possible moves.
    3) Use multi-threading in the first ply to gain speed

36. **Minimax Algorithm drawback**
    = The main drawback of the minimax algorithm is that **it gets really slow for complex games such as Chess, go**, etc. This type of games has a huge branching factor, and the player has lots of choices to decide.

37. **Is CSP searching Problem?**

= In CSPs, the problem is **to search for a set of values for the features (variables) so that the values satisfy some conditions** (constraints). – i.e., a goal state specified as conditions on the vector of feature values. 81 variables, each representing the value of a cell.

Net theke dekhe nish abar.

38. **CSP consists of three main components:**

- X: a set of variables {X1,…, Xn}
- D: a set of domains {D1,…, Dn}, one domain per variable. ...
- C is a set of constraints that specify allowable assignments of values to variables.

39. **Backtracking drawback search**

= The other drawback of backtracking is **having to perform redundant work**. Even if the conflicting values of variables is identified during the intelligent backtracking, they are not remembered for immediate detection of the same conflict in a subsequent computation.

40. **Bayasien network**

Bayesian network (BN) is **a probabilistic graphical model for representing knowledge about an uncertain domain where each node corresponds to a random variable and each edge represents the conditional probability for the corresponding random variables**

41. **Forward checking**

Forward checking **detects the inconsistency earlier than** simple backtracking and thus it allows branches of the search tree that will lead to failure to be pruned earlier than with simple backtracking. This reduces the search tree and (hopefully) the overall amount of work done

42. **What do the Constraints refer to in a CSP (Constraint Satisfactory problem)?**

The constraint is **the collection of all the restrictions and regulations that are imposed on the agent while solving the problem**

43. **What are the components of knowledge in AI?**

There are mainly four approaches to knowledge representation, which are givenbelow:

- Simple relational knowledge: ...
- Inheritable knowledge: ...

- Inferential knowledge: ...
- Procedural knowledge:

44. **conditional probability**

conditional probability and its use in AI. In probability theory, conditional probability is **a measure of the probability of an event given that** (by assumption, presumption, assertion or evidence) another event has occurred. ... Using conditional probabilities, we can have conditional information.

45. **Neural network**

A neural network is **a series of algorithms that endeavors to recognize underlying relationships in a set of data through** a process that mimics the way the human brain operates. In this sense, neural networks refer to systems of neurons, either organic or artificial in nature.

46. **Backtracking problem**

Backtracking is a **technique based on algorithm to solve problem**. It uses recursive calling to find the solution by building a solution step by step increasing values with time. It removes the solutions that doesn't give rise to the solution of the problem based on the constraints given to solve the problem.